EA-18G - Archived 4/2008

Outlook

- The replacement for EA-6B Prowler is based on the F/A-18F Super Hornet and modified ICAP III components
- The EA-18G Growler, based on the F/A-18F Super Hornet, will be equipped with some of the most advanced electronic warfare systems in the United States arsenal
- Some of the major components include the ALQ-99, the ALQ-218, and the USQ-113. The aircraft will also be equipped with the APG-79 AESA radar
- The systems that equip the EA-18G Growler already are reported on in individual reports. This report will be archived in 2008

Orientation

Description. Naval electronic warfare aircraft.

Sponsor
U.S. Navy
Naval Air Systems Command
NAVAIR HQ
EW Program Office PMA-272
AIR-21422D
47123 Buse Rd Unit IPT
Patuxent River, MD 20670-1547
USA
Web site: http://www.nawcad.navy.mil
Tel: + 1 (301) 342-3000

Status. In development.

Application. Tactical jamming and carrier battle group support.

Price Range. Unit cost an estimated $67 to $90 million.

Contractors

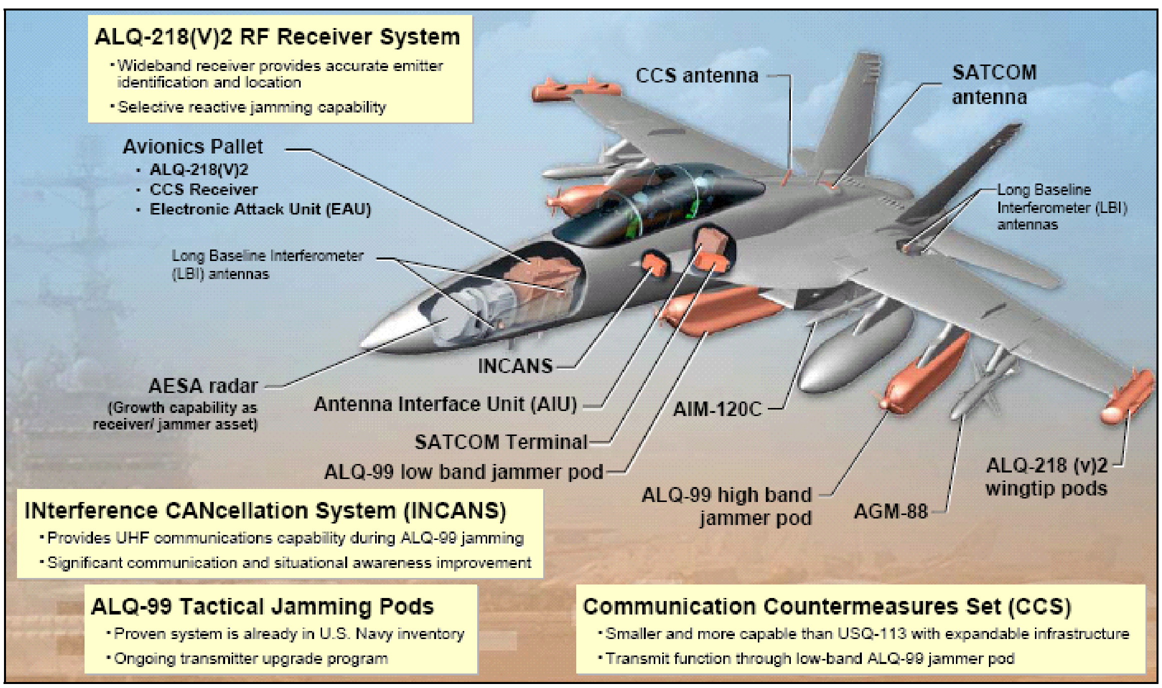
Prime

Northrop Grumman Electronic Systems	http://www.es.northropgrumman.com, 1580 W Nursery Rd, Linthicum, MD 21090 United States, Tel: + 1 (800) 443-9219, Email: ES_Communications@ngc.com, Prime
Boeing	http://www.boeing.com, 100 N Riverside, Chicago, IL 60606 United States, Tel: + 1 (312) 544-2000, Fax: + 1 (312) 544-2082, Email: wwwmail.boeing2@boeing.com, Second Prime
EDO Corp	http://www.edocorp.com, 60 E 42nd St 42nd Fl, New York, NY 10165 United States, Tel: + 1 (212) 716-2000, Fax: + 1 (212) 716-2050, Co-producer
Raytheon Network Centric Systems, Radios and Terminals	http://www.raytheon.com, 1010 Production Rd, Fort Wayne, IN 46808 United States, Tel: + 1 (260) 429-6780, Fax: + 1 (260) 429-6736, Email: commsys@raytheon.com, Co-producer

EA-18G

EA-18G

Source: Boeing Co



EA-18G Integrated Electronic Attack Technology

Source: Boeing

Technical Data

	Metric	U.S.
Dimensions		
Length	18.4 m	60.3 ft
Wingspan	13.7 m	44.9 ft
Height	4.9 m	16 ft
Weight	15,011 kg	33,094 lb (empty)
	29,937 kg	66,000 lb (GTO)
	21,318 kg (max carrier landing) [1,360 kg more than F/A-18F]	47,000 lb (max carrier landing) [3,000 lb more than F/A-18F]
Characteristics		
Speed	920 kmph	500 kt
Ceiling	11,285 m	37,000 ft
Flying range	+ 1,840 km	+ 1,000 nm
Speed	0.99 Mach (max)	
	0.72 Mach (cruise)	
On-station time	8 hr (refueled)	
Crew	2	
EA-18G, F/A-18E/F common subsystems	Stores management subsystem Flight control system Hydraulic system Propulsion system Fuel system Electrical system Secondary power system Environmental control system	
EA-18G Core Block I	Missionized >Lot 30 Block 2 F/A-18F	
SEAD capability	Standoff Time-critical strike support Full-spectrum surveillance Escort 9 store stations Integrated Electronic Attack suite	
Full-spectrum EA	ALQ-218(V)2, ALQ-99(V), USQ-113(V) or upgraded replacement, CCSR	
Precise targeting	ALQ-218(V)2, APG-79(V) AESA radar, MATT, MIDS	
Weapons	HARM, AIM-120C only	
Retains provisions for	ATFLIR, IDECM, RWR, additional standoff weapons	

Design Features. The EA-18G will replace the EA-6B Prowler electronic warfare aircraft when it is retired. Baseline for the EW suite is the Prowler ICAP III system that features a selective reactive jamming capability that can detect the frequency and frequency changes of a threat emitter and quickly make the necessary jammer adjustments or frequency assignments at the transmitters. The new integrated receiver system covers frequency Bands 1 through 10, with direction-of-arrival measurements accurate enough for emitter classification and jammer management.

The EA-18G starts with a Block 2 F/A-18F that includes the APG-79(V) Active Electronically Scanned Array (AESA) radar and fiber-optic databus. The Joint Helmet Mounted Cueing System (JHMCS) and Tactical Aircraft Moving Map Capability (TAMMAC) will provide the crew next-generation situational awareness.

The cockpit will be night-vision compatible and feature independent crew station operation with automation, allowing one person to do what now takes three in the EA-6B. Network-centric operations will be possible with a VHF/UHF digital communications system and the MIDS (multifunction distribution system), and there are plans to add the Link 16 datalink.

The AESA radar will make a significant difference to the airplane in the long run. According to Bob Feldmann, Boeing EA-18G Program Manager, and Dan Roper, Northrop Grumman EA-18G Program Manager, the radar will double the target detection range of the F/A-18E/F Block 1. The synthetic aperture radar (SAR)

EA-18G

will generate high-resolution SAR maps at longer ranges and provide simultaneous air-to-air and air-to-ground tracking. It will feature low-probability-of-intercept and be more reliable (no array maintenance for 10-20 years). More importantly, though, the AESA radars have the potential to become an added aperture for the EW system, generating pointable receive and transmit beams for electronic attack.

The major benefit is that instead of preemptive, broadband jamming, the new receivers make it possible to transmit a narrow band of RF energy targeting a specific threat. This reduces the amount of transmitted energy needed to counter a hostile system. Key operational advances are accurate, full-azimuth detection and location of threats coupled with fast, reactive emitter geolocation and targeting.

The new receiver design is key to ICAP III improvements. The ALQ-218(V) provides a selective reactive jamming capability that can detect the frequency and frequency changes of a threat emitter and quickly make the necessary jammer adjustments or frequency assignments at the transmitters. It has an integrated receiver system that covers frequency bands 1 through 10, with sufficient direction-of-arrival measurement for emitter classification and jammer management.

The system backbone is the ALQ-218(V), which uses off-the-shelf and non-developmental equipment, as well as government-furnished hardware. The system also has the ability to perform High-Speed Anti-Radiation Missile (HARM) targeting concurrent with jamming.

Doug Swoish, Northrop Grumman director of EW Programs, told the Association of Old Crows EW professional association that the ALQ-218(V) design takes advantage of today's processing. It uses the equivalent of four receivers looking at parts of the environment to make signal measurements. Significant increases in computer/processor memory make it possible to compare all aspects of the pulse train, combined with other signal information.

The system looks through the jamming based on pulse train characteristics rather than a timed on/off cycle. Flight testing in the extremely dense electronic environment along the Eastern Seaboard from Boston to North Carolina proved this capability to be effective.

The new receivers track frequency-hopping radars and put jamming energy on a new signal quickly enough to reduce the likelihood of the radar being able to establish a new track. This was not possible with ICAP II. Power is concentrated in a narrow frequency range instead of expending RF energy in unused parts of the spectrum. The narrower signal makes detection by electronic support measures (ESM) systems less certain.

The upgrades improve situational awareness and help jam and suppress enemy air defenses by integrating offboard surveillance information (TRAP, TADIX B, and TIBS) and by providing better communications connectivity with other assets via Link 16. Link 16 is a critical part of the upgrade because it allows other battlefield sensors, such as Rivet Joint, to be integrated with the Prowler, significantly improving situational awareness for all forces in a combat area.

The ALQ-218(V)2 processor is mounted in the forward part of the fuselage, with the receiver components mounted in wingtip pods. The aircraft will carry three upgraded ALQ-(V)99s.

The wingtip pods will house low/medium/high band acquisition and DF antenna arrays, as well as pre-selector amplifiers and converters.

The INCANS (Interference Cancellation System) provides for a communications capability during ALQ-99 jamming. This will be a significant communication and situational awareness improvement.

The Multimission Advanced Tactical Terminal (MATT) gives the EA-18G a sitcom-receive capability for off-board sensor information. It provides access to the Integrated Broadcast Service (IBS).

The ICAP III upgrades improve situational awareness and the ability to jam and suppress enemy air defenses by integrating offboard surveillance information and providing better communications connectivity with other assets. Link 16 is a critical part of the upgrade because it allows information from other battlefield sensors (such as Rivet Joint) to be integrated, significantly improving situational awareness for all forces in a combat area.

The system will jam and/or destruct enemy land-based, shipborne, and airborne command, control, and communications systems, as well as the radars associated with early warning, target acquisition, and surveillance, and anti-aircraft artillery, air-to-surface, surface-to-surface, and surface-to-air missiles. In this role, it supports carrier-based tactical and battle group operations in dense radar-controlled environments.

In the communications countermeasures mode, the system monitors communications and can jam audio or data communications. The communications countermeasures system will automatically jam active targets or blindly jam designated targets. The communications mode allows normal voice or ICD (Imitative Communications Deception).

The smaller and more capable "USQ-113(V)3-like" communications countermeasures system will be fully integrated so that data can be viewed through the main display system. New displays will be installed to better combine onboard and offboard data. Smaller and more capable, the new communications jammer will have an expandable infrastructure and be able to transmit through the low-band ALQ-99 jamming pod.

Operational Characteristics. The EA-18G will provide an umbrella of protection for strike aircraft and ships by jamming enemy radar, electronic datalinks, and communications. It will, in addition, collect tactical electronic order of battle (EOB) data that can be disseminated through the command and control system while airborne, and be recorded and processed after missions to provide updates to various orders of battle.

ICAP III will improve situational awareness on the battlefield. Communications jamming has become part of the Prowler mission, and can also be used to jam ship navigation radars as a means of denying harbor entry to vessels – a potential homeland defense application.

Terminal self-protection from surface-to-air missiles and anti-aircraft guns is provided by electronic combat equipment carried by individual strike aircraft. The EA-18G will orbit along the ingress path of a strike force, setting up a wall of jamming to screen the attack force from detection. Another tactic is patrolling a "kill box," a rectangular area in which attacks are taking place.

Communications monitoring and jamming are important aspects of electronic warfare. By eavesdropping on or disrupting an opponent's command and control links, ground commanders can gain significant combat advantages. Ground forces are interested in monitoring enemy communications links, and monitoring systems are increasingly being added to the mission portfolio of airborne assets.

The concept of using the EA-6B to jam ground communications links was expanded in Afghanistan. The air defense system of the Taliban had been decimated so the Prowlers had few radar targets, but there was a need to disrupt the enemy communications system. Cooperative operations with Compass Call aircraft proved very effective. In Afghanistan, crews effectively shut down the ground communications of the Taliban and al-Qaeda.

Operating in the VHF/UHF region, the USQ-113(V)3 gives the EA-6B aircraft an expanded capability. The system can be set to share power among several signals to create a high level of disruption.

Noise and standard deception jamming can be effective in disrupting an opponent's operations. By linking the system to an external modulator, it can be optimized to counter a particular network. The communications mode gives operators the opportunity to insert false, misleading, or confusing information into a targeted link.

EA-18Gs will be assigned to CVW squadrons. The goal is five aircraft per squadron, with nine crews. The Navy has set a goal of 10 squadrons by 2012.

Variants/Upgrades

The EA-18G has been flight tested with a three-pod configuration.

The ALQ-218(V)2, an improved version of the ICAP III (V)1 system, will feature a fully digitized receiver.

The USQ-113(V)3 may initially be integrated into the jamming system if a new counter-countermeasure (CCM) system is not ready, but officials are developing an eventual replacement for the communications jammer.

In the future, the EA-18G might be updated with the following:

- Improved radar jamming with new pods.
- Fully integrated radar and electronic attack systems.
- Improved communications jamming and geo-location.
- The ability to maintain tactical datalinks throughout a mission.
- Improved pre- and post-flight planning and analysis.
- Passive survivability.

Program Review

Background. Although the EA-6B Prowler is expected to remain in service until 2015, subsonic performance and the increasing cost of ownership/ operation of the EA-6B fleet are worrisome. The high demand is taking a toll on this limited fleet. Since most major acquisition programs can run 12 or more years, it was critical that the Department of Defense, the services, and industry begin to define operational alternatives for SEAD and command and control warfare (C^2W) needs. A study plan was approved on December 15, 1999, with the guidance of the Office of the Secretary of Defense (OSD).

AEA AOA. With the help of the Association of Old Crows (AOC), the defense electronics trade group, the DoD formed a joint government/industry study committee to address the problem. The AOC supported a series of meetings in which defense officials worked through the issues and generated the information needed so planners could make a decision that would be reasonable and affordable, and meet the needs of the services. The Airborne Electronic Attack (AEA) Analysis of Alternatives (AoA) identified 27 options ranging in cost from $21 billion to $82 billion, and included combinations of all manner of manned aircraft.

ICAP III performance would be the baseline requirement for any EA-6B follow-on. The new system would initially augment the EA-6B, and later replace it. A 30-year cost-of-ownership was the fiscal consideration against which options were evaluated.

Since the USAF conceded the SEAD mission to the Navy in 1996, it was assured that any successor platform would be aircraft carrier capable, thus limiting the choices to the Joint Strike Fighter or a derivative of the two-seat F/A-18F Super Hornet. But since the JSF program is still in its infancy and its carrier capability yet to be defined, a Super Hornet derivative was the natural choice.

Because the Air Force has its hands full with so many high-priority programs (C-17, F-22, and JSF, to name a few), there was little inclination to take back the EA-6B tactical jamming mission. Various other methods of standoff and escort jamming are being explored, including new self-protection capabilities, UAVs, and a combined communications relay, SIGINT, and electronic attack suite. The Air Force began planning for the B-52 Stand-Off Jammer (SOJ) to take over the USAF standoff EW mission, but in a Program Budget Decision (PBD 720) issued prior to the FY07 defense budget release, the service said it would terminate the effort.

EA-18G Demo. On November 15, 2001, Boeing completed an initial flight demonstration of its EA-18 Airborne Electronic Attack concept aircraft. The test used an F/A-18F Super Hornet to carry three ALQ-99(V) jamming pods and two fuel tanks, while measuring noise and vibration data and assessing aircraft flying qualities.

The EA-18G was the result of an engineering design, development, and test effort that began in 1993 and has included avionics and aircraft conceptual design, engineering analysis, high- and low-speed wind tunnel testing, electromagnetic interference/compatibility laboratory testing, antenna range testing, and extensive crew-vehicle interface development.

The aircraft has gone into production and was designed to be flexible enough to perform a broad range of tactical missions, operating from either the deck of an aircraft carrier or from land-based airfields. The EA-18G has just about all systems in common with the Super Hornet except the EW suite, reducing support and training costs for the U.S. Navy.

In a March 2005 briefing, Bob Farmer of Boeing noted that the program was on schedule, under budget, and meeting or exceeding all performance requirements. The aircraft has a 100-pound weight margin.

SDD Program highlights were:

Dec 2003 – SDD contract award

Jun 2004 – First "chip" cutting to start EA-1 production.

Oct 2004 – Preliminary Design Review

Dec 2004 – Start of antenna testing by Boeing at its St. Louis (Missouri) "Smart Field" range.

Jan 2005 – Required wind tunnel testing completed by Boeing.

Apr 2005 – System Critical Design Review.

May 2005 – Modification of EA-1 (F134) and EA-2 (F135).

4Q 2006 – Aeromechanical testing at Patuxent River Air Station, Maryland.

3Q 2006 – EA-1 first flight in St. Louis.

3/4Q 2006 – Avionics flight testing at Patuxent River and China Lake NAS, California.

EA-18G GAO Assessment

The following is excerpted from documents released by the Government Accountability Office.

EA-18G. The EA-18G entered system development without demonstrating that its five critical technologies had reached full maturity. Three technologies were very close to maturity, and two technologies have not been demonstrated in the form they will exist on the aircraft. While the EA-18G's critical technologies are similar to mature technologies on the EA-6B and the F/A-18F, integrating them into the EA-18G will involve form and fit challenges. The EA-18G will rely on planned capability upgrades developed for the EA-6B, which could increase program risk. In addition to these challenges, the program also faces risks with software integration. The program office could not project the number of releasable drawings until the design review in April 2005.

Technology Maturity. None of the EA-18G's five critical technologies are fully mature. While they are similar to the mature technologies found on the EA-6B and the F/A-18F, integrating those technologies on the EA-18G will involve form and fit challenges. Three of the critical technologies, the ALQ-99 pods, the F/A-18F platform, and the tactical terminal system, are approaching full maturity. The remaining two technologies, the receiver system and the communications countermeasures set, are not mature.

The Navy is funding a study to develop a new tactical terminal system, which it hopes to incorporate into the EA-18G to help reduce weight, conserve power, and reduce cooling requirements. According to the program office, similar systems are already in use in DOD. For example, the Special Operations Forces are using a system the size of a credit card, significantly lighter than the current 50-pound system. If the new system is not developed in time for the start of aircraft production, the program plans to use a modified version of the tactical terminal system currently in use on the EA-6B.

Raytheon Systems is developing the communications countermeasures set for the EA-18G, which will be based on a similar system currently used on the C-130J aircraft. Raytheon is expected to begin delivery of the system in January 2005.

Design Stability. We could not assess the design stability of the EA-18G as the number of releasable drawings is not yet available. The EA-18G Program Office does not expect to have an estimate of the number of design drawings until the design review, currently planned for April 2005. By not having sufficient design drawing information, the program places itself at increased cost and schedule risk.

Other Program Issues. The EA-18G Program Office plans to build one-third of its aircraft during low-rate initial production due to the need to begin replacing retiring EA-6Bs by 2009. Any problems identified in testing during production could result in costly modifications to the already produced aircraft. The program office has indicated it may proceed into production even if minor known deficiencies exist.

Because the EA-18G is using the same airframe as the F/A-18F, the program office is conducting a study to determine what impact the increased vibration of the EA-18G will have on the life span of the airframe. The program office also plans to certify the aircraft to land aboard ship at 47,000 pounds, which is 3,000 pounds heavier than the similar F/A-18F aircraft.

The F/A-18E/F aircraft has experienced problems with "wing buffet," which can affect performance. The F/A-18F Program Office has made design changes, which it expects will resolve the issue.

The ALQ-99 pods successfully completed shake testing, which evaluated their ability to handle the increased vibrations of the EA-18G.

The EA-18G program may experience minor cost growth if cuts are made in the number of EA-6Bs that are upgraded because the EA-18G program plans to procure some of the same components as those used in the EA-6B ICAP III upgrade. Decreased purchases by the EA-6B program would increase unit costs of these items, thereby increasing the cost to the EA-18G. (GAO-05-301, *Assessments of Selected Major Weapon Programs,* March 2005)

PE#0604269N

Mission Description. The EA-18G is being developed to replace the EA-6B aircraft and will have electronic attack capabilities that meet or exceed the EA-6B (with the LR-700, ALQ-99, and USQ-113 EW systems) and AEA capability to detect, identify, locate, and suppress hostile emitters. It will provide enhanced connectivity to National, Theater, and Strike assets, as well as provide organic precision emitter targeting for employment of onboard suppression weapons (HARM). The EA-18G will be able to operate autonomously or as a major node in network-centric operations.

The performance of the aircraft is compatible with the primary strike/fighter aircraft projected to be in the inventory in the 2010 time period, so the EA-18G will be able to be fully integrated into specific strike packages. It will also have the capacity to provide broad-area jamming coverage for extended periods of time so as to support numerous strikes or other joint air operations.

The EA-18G will perform a range of EW/EA functions either simultaneously or independently. The man-in-the-loop operation and advanced information display system will allow real-time assessment of the tactical situation and the appropriate response executed in accordance with the rules of engagement.

Acquisition Strategy. The EA-18G is being developed based on the findings of an OSD-sponsored

AOA and a Navy-sponsored Refinement of Alternatives study. A sole-source contract has been awarded to Boeing (the platform manufacturer) for system design and development. Boeing is under contract with Northrop Grumman to incorporate EW/EA systems into the Super Hornet.

The contract was structured to minimize the Navy's up-front investment and cancellation penalty while reducing costs for the total program life-cycle. The cost-plus-award-fee (CPAF) contract arrangement provides incentives based on cost, schedule, and technical performance.

Starting in FY05 two F/A-18Fs would be modified through an RDT&E-funded effort to incorporate the EW/EA systems for further development, integration, and testing.

Air vehicle design and integration of the ICAP III avionics into the EA-18G are funded at $173.270 million in FY04, $302.793 million in FY05, $320.268 million in FY06, and $268.242 million in FY07.

Software development is supported with a budget of $24.069 million in FY04, $43.219 million in FY05, $49.939 million in FY06, and $45.734 million in FY07.

Developmental and operational planning and testing ramps up dramatically from $6.398 million in FY04 and $7.667 million in FY05 to $38.890 million in FY06, and $58.047 million in FY07.

The overall EA-18G schedule was adjusted at the Milestone B decision point to account for the Subsystem Preliminary Design Review schedule.

Boeing engineers completed all wind-tunnel testing for the EA-18G Airborne Electronic Attack aircraft on January 27, 2005, under the EA-18G System Development and Demonstration (SDD) program. The program conducted five different wind-tunnel tests at several laboratories over the course of June 2004-January 2005. Each test gathered critical information for the continued development of the EA-18G. The Boeing team conducted a total of 1,412 hours of wind-tunnel testing. Mike Gibbons, EA-18G chief engineer for Boeing, said the company will use these results to complete the detailed design of the EA-18G weapon system and present it to the Navy at the Critical Design Review in April 2005.

High-speed performance testing was conducted on an 8 percent model at the NASA-Ames transonic wind tunnel in Mountain View, California. Configuration testing and lateral-directional stability and control testing also was conducted with the 8 percent model at NASA-Ames, while low-speed lift testing occurred at the Boeing V/STOL wind tunnel in Philadelphia with a 15 percent model.

In addition, separation and jettison testing for the jamming pods, external fuel tanks, and missiles was conducted. The final test, using a new 16 percent aerodynamic force and moment model, analyzed the high angle of attack for the aircraft. The test gauged the upright and inverted high angle of attack stability and control effects. It was conducted at the Langley Full Scale Tunnel, operated by Old Dominion University in Norfolk, Virginia.

Funding

U.S. FUNDING

	FY05 QTY	FY05 AMT	FY06 QTY	FY06 AMT	FY07 QTY	FY07 AMT	FY08 QTY	FY08 AMT
Procurement (U.S. Navy)								
PE#0204154N								
EA-18G	-	8.2	-	353.1	-	932.0	-	1,365.1
RDT&E (U.S. Navy)								
PE#0604269N								
E3063 EA-18G	-	346.53	-	393.86	-	372.36	-	268.10

	FY09 QTY	FY09 AMT	FY10 QTY	FY10 AMT	FY11 QTY	FY11 AMT	FY12 QTY	FY12 AMT
Procurement (U.S. Navy)								
PE#0204154N								
EA-18G	-	1,654.1	-	1,478.5	-	851.7	-	564.6
RDT&E (U.S. Navy)								
PE#0604269N								
E3063 EA-18G	-	84.16	-	86.53	-	82.45	-	TBD

All $ are in millions. Source: FY07 U.S. Budget Documents.

Contracts/Orders & Options

(Contracts over $5 million.)

Contractor	Award ($ millions)	Date/Description
Boeing	979.0	Dec 2003 – CPAF contract for SDD of the EA-18G. To be completed December 2009. (N00019-04-C-0005)
Boeing	7.0	Sep 2004 – Mod to a previously awarded CPAF contract to provide additional fault isolation in the ALQ-218(V)2 Tactical Jamming Receiver components of the EA-18G SDD. To be completed September 2009. (N00019-04-C-0005)
Boeing	49.3	Jul 2005 – Ceiling-priced, ID/IQ contract for engineering, technical, and material support for all variants of the F/A-18 and EA-18G. To be completed December 2007. (N00019-05-D-0002)
Boeing	500.0	Jul 2005 – Not-to-exceed ID/IQ contract for procurement of new F/A-18E/F and EA-18G trainer and training systems and the upgrade of existing systems Contract covers the full range of analysis, modeling and simulation, design, development, production, modification, test and evaluation, delivery, refurbishment, relocation, and product support for all training systems for the U.S. Navy and Marine Corps. To be completed July 2010. (N61339-05-D-0003)
Boeing	8.5	Aug 2005 – Mod to a previously awarded CPAF contract for a training system for the EA-18G aircraft. To be completed July 2008. (N00029-04-C-0005)
Boeing	19.7	Jan 2006 – Mod to a previously awarded CPAF contract for modeling and simulation, design, and development of a training system for the EA-18G. To be completed June 2008. (N00019-04-C-0005)

Timetable

Month	Year	Major Development
Nov	2001	EF-18 makes first demonstration flight
Dec	2001	EA-6B AEA AOA completed
May	2002	EA-18G identified as USN solution for AEA “Core Component”
Aug	2002	USD (AT&L) approves Pre-SDD funding
Jul	2003	Draft ORD reviewed by Joint Staff/services
1Q	FY04	EA-18G Pre-SDD, Milestone B, SDD contract award
1Q-4Q	FY04-07	EA-18G SDD, Developmental Testing
	FY05	ICAP III EA-6B upgrades begin, IOC
1Q	FY05	EA-6B PDR
Jun	2005	Lot 1 ICAP III to be completed
3Q	FY05	EA-18G CDR
1Q	FY06	EA-18G SDD aircraft and contract award
2Q	FY06	EA-6B Developmental Test Assist
3Q	FY06	EA-18G SDD production (AEA) contract award
4Q	FY06	EA-18G EA-1 delivery
1Q	FY07	EA-18G EA-2 delivery, LRIP 1 aircraft contract award
2Q	FY07	EA-18G operational assessment
3Q	FY07	EA-18G Milestone C
	2015	Planned life of the EA-6B

Worldwide Distribution/Inventories

This is a **U.S.**-only program.

Forecast Rationale

EA-18G Equipped with Advanced Electronics

The EA-18G Growler, based on the F/A-18F Super Hornet, will be equipped with some of the most advanced electronic warfare systems in the United States arsenal. It is replacing the EA-6B Prowler, which is showing its age. Most of the equipment that will equip the Growler are variants of the equipment that makes up the ICAP III. Some of the major components include the ALQ-99, the ALQ-218, and the USQ-113. The aircraft will also be equipped with the APG-79 AESA radar.

Since Forecast International already reports on the systems mentioned above, and the Aerospace Group reports on the EA-18G, this report is redundant. Therefore, it will be archived next year. By archiving this report, Forecast International will be able to analyze the market in a more specific and accurate way. For information on the EA-18G Growler, see reports on the ALQ-99, USQ-113, ALQ-218, and Forecast International Aerospace Group's report on the Boeing F/A-18 Hornet.

Ten-Year Outlook

The systems that equip the EA-18G Growler already are reported on in individual reports. This report will be archived in 2008.

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