

ARCHIVED REPORT

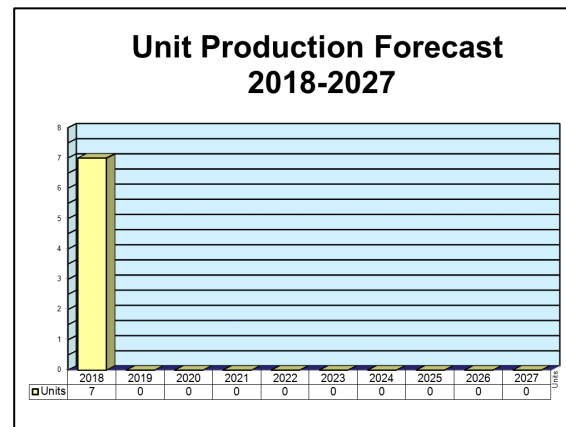
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ALQ-99(V)

Outlook

- Once it enters LRIP in 2020, the NGJ will replace in-service ALQ-99 units
- The ALQ-99 is forecast to exit production in 2018
- Due to its strategic importance, the ALQ-99 will receive O&M funding into the late 2020s/early 2030s before the NGJ replaces it entirely



Orientation

Description. The ALQ-99 is an airborne tactical jamming system.

Sponsor

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 Naval Air Systems Command
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 47123 Buse Rd Unit IPT
 Patuxent River, MD 20670-1547
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 Tel: + 1 (301) 342-3000
 Website: <http://www.navair.navy.mil>

Status. In production and service.

Application. The ALQ-99 equips the U.S. Navy's EA-18G Growler EW aircraft and EA-6B Prowler tactical jamming aircraft as part of the Improved Capability III (ICAP III) program.

Price Range. Forecast International estimates the price of an ALQ-99(V) to range between \$750,000 and \$1.6 million, based on several factors. This amount is speculative, because the ALQ-99 is usually sold as part of an electronics suite and detailed pricing information is not published. One price point can be deduced from an April 2010 contract in the amount of \$46 million for 60 ALQ-99(V) low-band transmitters, yielding a unit price of \$766,667.

More recently, a December 2013 contract for 19 ALQ-99s was valued at \$21.8 million, giving a unit price of \$1.148 million.

Contractors

Prime

Harris	http://www.harris.com , 1650 Tysons Blvd, Ste 1700, McLean, VA 22102 United States, Tel: + 1 (703) 790-6300, Fax: + 1 (703) 790-6360, Prime
Cobham Integrated Electronic Solutions	http://www.cobham.com , 305 Richardson Rd, Lansdale, PA 19446 United States, Tel: + 1 (215) 996-2000, Second Prime

ALQ-99(V)**Subcontractor**

L3 Technologies - Electron Devices	http://www2.l-3com.com/eti/, 1035 Westminster Dr, Williamsport, PA 17701 United States, Tel: + 1 (570) 326-3561, Fax: + 1 (570) 326-2903, Email: wmsptmarketing@l-3com.com (Traveling Wave Tubes)
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Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

Technical Data

Design Features. The ALQ-99 tactical jamming system (TJS) is a fully integrated computer-controlled support jamming system. The system intercepts and automatically processes radar signals and manages the transmitters to effectively jam large numbers of diverse radar threats. The TJS includes a receiver, a processor, aircrew interfaces, and transmitter pods.

The system's central processing unit (CPU) performs three major duties: jammer management, threat data processing, and operator display generation. The System Integrated Receiver (SIR) group supplies the basic threat data to the CPU, which identifies the emitter by comparing the data against a preprogrammed library of pulse repetition frequency (PRF), wavelength, order-of-battle, and location information. The CPU then recommends jamming selections, or automatically makes the choice, steering the transmission beams and checking transmitter tuning accuracy. Data on the threat situation can be updated in near real-time.

The transmitter pods are mission configurable and carried on external hardpoints. The transmitters contain a ram air turbine generator, two selectable transmitter modules with associated antennas, and a universal exciter that is controlled by the receiver/processor and aircrew.

The ALQ-99 forms the heart of the ICAP III electronic warfare suite on board the EA-6B Prowler. The TJS will also equip the EA-18G Growler, which will replace the EA-6Bs. Three to five pods are carried by each Prowler. The Growler will most likely carry a similar number.

Operational Characteristics. The EA-6B is a carrier- or land-based electronic warfare strike escort and standoff jammer. Strike packages now include one or more EA-6Bs for a penetration attack. The Prowler uses its powerful jammer to disable or disrupt the early

warning, surveillance, ground control intercept, and communications systems of hostile forces.

The range of coverage is estimated to be up to 400 kilometers (216 nm) when operating at an altitude of 30,000 feet. This increases the survivability of a force and success of an attack. In addition to escorting a strike package, the Prowler can 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. This typically requires 45 to 60 minutes of continuous jamming, a very long window of vulnerability for an aircraft.

The ALQ-99(V) was designed to jam enemy land-based, shipborne, and airborne command, control, and communications systems, as well as radars that provide early warning and target acquisition surveillance of anti-aircraft artillery and air-to-surface, surface-to-surface, and surface-to-air missiles. It supports carrier-based tactical aircraft and battle group operations in dense, radar-controlled environments. With the retirement of the EF-111A, the EA-6B supports all land-based joint operations in a variety of threat environments.

The ALQ-99(V) system has three operational modes:

1. Automatic – The processor sorts detected signals and directly controls the jamming components against the detected threat. Two operators monitor system operation.
2. Semi-automatic – Threats are detected and identified for the operators, who select the ECM mode of operation.
3. Manual – Operators scan selected parts of the spectrum, identify threats, and select a jamming response.

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Two U.S. Navy technicians service an ALQ-99 pod.

Source: U.S. Navy, Mass Communication Specialist 3rd Class Scott Pittman

Variants/Upgrades

The ALQ-99 integrates several components into its countermeasures setup. In the current ICAP III setup, these include the following:

ALQ-218 – Wideband Tactical Jamming Receiver. The Northrop Grumman-produced ALQ-218 works in concert with the ALQ-99 to identify jamming threats and negate them. It functions as an electronics intelligence (ELINT) unit, an electronic support measure (ESM), and a radar warning receiver (RWR). This unit is located in the tail blister of the EA-6B and in the wingtips of the EA-18G.

ALQ-227 – Communications Countermeasures Set. The Raytheon-produced ALQ-227 functions much like the ALQ-218; however, it is specialized for A/V communication. In operation, the ALQ-227 receives electromagnetic communication waves and then works with the ALQ-99 to intercept and neutralize the signal.

Modular Upgrades and Variants

The ALQ-99 program consists of a series of modular upgrades. These include the following:

Universal Exciter Upgrade (UEU). The UEU unit is a Weapons Replaceable Assembly (WRA) that produces radar and communication jamming signals on two transmitter-related channels. It performs testing and calibration functions under the direction of the onboard tactical computer.

Band 9/10 Transmitter. This is a high-power radio frequency jammer that is deployed with the UEU WRA as part of the ALQ-99(V) tactical jamming system. When carried by an EA-6B aircraft, the Band 9/10 transmitter provides expanded radar jamming capability for the suppression of modern integrated air defense systems.

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Band 7/8 Transmitter Upgrades. These upgrades completed a Critical Design Review. Initial Operational Capability (IOC) was scheduled for FY05.

Band 1-3 Upgrades. IOC of this upgrade was scheduled for FY06.

Band 4-6 Upgrades. The Navy is conducting studies of these enhancements.

Low-Band Transmitter (LBT). The LBT engineering development models (EDMs) are broken out as three LBT Antenna Set EDMs and five Amplifier Set EDMs. All Amplifier Set EDMs and Antenna Set EDMs were completed in FY02. The ALQ-99(V) LBT Antenna Group provides an expanded warfighting capability against the early warning / acquisition radars and communication links of modern integrated air defense systems.

The LBT entered engineering and manufacturing development (EMD) in September 1996. The Navy re-baselined the ALQ-99(V) LBT upgrade program in September 2000. The service slipped the program's IOC date from the third quarter of FY04 to FY05. This was to be followed by low-rate initial production (LRIP) in FY05 and full-rate production (FRP) approval (Milestone III) in FY06.

EA-6B ICAP III. ICAP III is the seventh-generation EA-6B jamming system. ICAP III features a selective reactive jamming capability that can detect the

operating frequency and frequency changes of a threat emitter, and quickly make jammer adjustments or specific frequency assignments at the transmitters. This allows it to transmit a narrow band of RF energy targeting a specific threat rather than using large amounts of energy to conduct area-wide jamming. It has an integrated receiver system that covers frequency Bands 1 through 10, with direction-of-arrival measurements accurate enough for emitter classification and jammer management.

The new receivers will be able to track frequency-hopping radars and put jamming energy on the new signal quickly enough to reduce the likelihood of the radar being able to establish a new track, something not possible with ICAP II. Power is concentrated in a narrow frequency range, and thus not diluted by distributing RF energy into unused parts of the spectrum. The narrower signal makes it possible to jam a threat using less power and makes detection by some ESM systems less certain.

EA-18G Growler. This is the Navy's replacement for the EA-6B aircraft. The ALQ-99 version used in the EA-18G is the EA-6B's ICAP III system reconfigured for use in an F/A-18F platform. Minimum ICAP III performance is the baseline requirement. The ALQ-99's ALQ-218 receivers, which had been located in the EA-6B tail blister, are now installed on the EA-18G's wingtips.



The EA-18G Growler is one of the ALQ-99's most prominent platforms.

Sources: U.S. Navy, Petty Officer 3rd Class Weston A. Mohr

Program Review

Smart Jamming System. The ALQ-99(V) first entered service in 1971, just in time to see action in Vietnam. The system grew from a naval requirement for a "smart" jamming system to counter a range of threats, as well as to provide electronic cover for the U.S. Navy's airborne and seaborne units. A noise jammer, track breaker, and VHF jammer were combined into a single system.

Sorties over Afghanistan and Iraq

The ALQ-99 is a key part of the Improved Capability III (ICAP III) electronic warfare suite on board the EA-6B Prowler. Demonstrating the EA-6B's usefulness, the aircraft has flown numerous sorties over Afghanistan and Iraq since the beginning of the war on terror. Although both countries had limited air defense systems, the aircraft were found to be particularly effective in jamming communications equipment and command-and-control equipment used by the Taliban in Afghanistan and the insurgents in Iraq. Prowlers were used in conjunction with Compass Call aircraft.

In 2003, U.S. Navy and USMC EA-6B aircraft flew 766 sorties during Operation Iraqi Freedom, averaging 30 sorties a day. On day one, Prowlers flew 46 electronic attack sorties.

Navy Funds EW Development

Under PE#0604270N EW Development, the Navy funded the continuing development and integration of all EW systems on the EA-6B electronic attack aircraft. Two test articles were funded: two EA-6B aircraft were modified to support the Improved Capability III program, and eight low-band transmitter EDMs were funded. They were used as test articles during government test and evaluation (TECHEVAL/OPEVAL).

This effort included the conversion of the Tactical EA-6B Mission System software to the Joint Mission Planning System, including development of the EA-6B Unique Planning Module. In addition, the Airborne Electronic Attack Aircraft Analysis of Alternatives was completed for the replacement of the EA-6B. Transition to the EA-18G will coincide with the planned retirement of the EA-6B.

From FY04 through FY07, efforts were focused on a variety of ICAP III developmental tasks, including testing various modifications and developing software improvements and network-centric enhancements.

EA-18G to Replace EA-6B

Boeing began testing the feasibility of replacing the EA-6B with a modified F/A-18F Super Hornet in 2001. In November of that year, Boeing flew an F/A-18F with three ALQ-99 pods to test vibration and assess flight characteristics. In December 2003, the U.S. Navy signed a \$1 billion contract with Boeing to develop and demonstrate the EA-18G. In September 2006, the EA-18G Growler flew for the first time equipped with its external fuel tanks and ALQ-99 jamming pods.

Contracts

In 2007, the U.S. Navy awarded two contracts for ALQ-99 components worth a total of \$18.5 million. Both contracts were awarded to L-3 Communications and were for output traveling wave tubes (OTWTs) and driver traveling wave tubes (DTWTs) used on EA-6Bs.

The following year, the U.S. Navy awarded three contracts worth a total of \$85.6 million. One of the contracts, issued to Lockheed Martin, covered "dual lo" generators and low-phase noise oscillators. The other two contracts were awarded to Sensor and Antenna Systems and covered low-band transmitters, V-Pol antennas, H-Pol antennas, and Band 2 adapter interface assemblies.

In 2009, Sensor and Antenna Systems was awarded a \$32 million contract to deliver 37 ALQ-99 LBTs for EA-6B aircraft under a FRP Lot II contract. Work was expected to be completed in November 2011.

Upgrades

According to ITT, the ALQ-99 support jamming system has served U.S. and allied air forces for four decades in the Suppression of Enemy Air Defenses (SEAD) arena. The Universal Exciter Upgrade program has incorporated advanced jamming techniques using Direct Digital Synthesis high-density application-specific integrated circuits (ASICs), multichip modules (MCMs), and ball grid array (BGA) packaging. ITT reports delivering 480 UEUs to the U.S. Navy since 1998.

Next-Generation Jammer

The U.S. Navy is developing the Next Generation Jammer (NGJ), which will replace the ALQ-99 on EA-18G aircraft. *FlightGlobal* reported in March 2009 that the Navy had selected four

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companies – BAE Systems, ITT, Northrop Grumman, and Raytheon – to participate in a four-year competition to begin concept development. In late 2009, the four competitors submitted proposals for the technology maturation phase of the NGJ competition.

To coincide with the new NGJ program, airborne electronic attack (AEA) efforts that were funded under PE#0604270N Project 0556 EW Counter Response were moved to PE#0604274N Next Generation Jammer Project 0557 NGJ in FY10.

2010 Contracts

The U.S. Navy awarded Cobham Sensor and Antenna Systems the Band 5/6 Traveling Wave Tube Replacement Module Assembly (TRMA) development contract in January 2010. The primary objective is to replace the existing TWT-based RF chain in the ALQ-99 Band 5/6 transmitter with a solid-state amplifier module and DC-DC converter. The contract consists of a basic award and four options. The first is a risk-reduction phase intended to demonstrate a technical approach. At the conclusion of the risk-reduction phase, the Navy may award follow-on options for preliminary design, detailed design, production, and First Article Test of EDM units. If all options are exercised, the contract would be worth up to \$11.5 million.

In April 2010, Cobham was awarded a \$46 million contract to deliver 60 ALQ-99 LBTs for EA-6B and EA-18G aircraft under a FRP Lot III contract. Work was expected to be completed in September 2012. Cobham reported that this award brought the total number of production transmitters ordered to 217 of the 315 required.

NGJ Technology Maturing

While the ALQ-99 will continue to be produced, the U.S. Navy is developing the NGJ, which will replace the ALQ-99 on EA-18Gs.

In July 2010, BAE Systems, ITT Exelis/Boeing Phantom Works, Northrop Grumman, and Raytheon were each awarded contracts for technology maturation efforts in support of the NGJ program. In this phase, contractors improve their system concepts and equipment. The BAE Systems team includes Cobham, GE Aviation, and Harris.

Milestone Delivery

In August 2010, Cobham announced that it had produced the 100th Low Band Transmitter Antenna Group (LBT-AG) portion of the ALQ-99 tactical jamming system.

2011/2012 Contracts

In February 2012, the U.S. DoD announced that Sensors and Antenna Systems (Cobham) had been awarded a \$39 million contract modification for 48 LBTs and 41 antennas associated with the ALQ-99. Work was to be completed in August 2014.

In September 2011, Cobham announced the award of a \$16.9 million contract for ALQ-99 LBT-AG systems for USN and USMC EA-6B and EA-18G electronic warfare aircraft. This award supports Lot IV full-rate production and brings the total number of production transmitters ordered to 233 of the 315 required. The company also announced that 157 transmitters and 323 antenna products had been delivered.

In March 2011, an \$11 million contract modification was awarded to Sensors and Antenna Systems (Cobham) that allows the Navy to exercise an option for eight LBTs, 23 vertical polarized antennas, and 14 horizontal polarized antennas for the ALQ-99 low-band transmitter. Work was expected to be completed in January 2014.

230th Unit Produced

Before the close of 2012, Cobham produced the 230th ALQ-99 TJS production unit for the U.S. Navy. This achievement was announced in a January 2013 release that also noted that 314 units out of a requirement for 337 had been ordered to date.

Looking forward, the ALQ-99 TJS will be replaced in U.S. service by the NGJ, currently in development. For more information, see Forecast International's "Next Generation Jammer" report, which can be found in the *Airborne Electronics Forecast*, *Electronic Warfare Forecast*, and *AN Equipment Forecast*.

2018 – End of Production

According to Forecast International, in 2018, the final EA-18G will roll off the production line. Concurrently with this achievement, production of the ALQ-99 is forecast to formally end.

Although the ALQ-99 has equipped other aircraft like the EA-6, the EA-18G is the jammer's primary platform. When demand for new-build EA-18Gs ends, the ALQ-99 will have no further platforms to drive production.

However, so long as the ALQ-99 remains in use, O&M funding will be allocated to the system, as it will be continually upgraded, improved, and serviced.

ALQ-99(V)**Funding****U.S. FUNDING**

	<u>Prior</u> <u>AMT</u>	<u>FY16</u> <u>AMT</u>	<u>FY17</u> <u>AMT</u>	<u>FY18</u> <u>AMT</u>	<u>FY19</u> <u>AMT</u>	<u>FY20</u> <u>AMT</u>	<u>FY21</u> <u>AMT</u>	<u>FY22</u> <u>AMT</u>
Procurement (U.S. Navy)								
<i>L# 0513 – AEA Systems</i>								
OSIP 007-11 Airborne Electronic Attack (AEA) Systems	243.846	36.233	51.900	52.960	46.982	50.936	70.403	71.807

All \$ are in millions.

The AEA Systems line includes all funding for ALQ-99 tactical jamming systems, subsystems, and components.

Source: U.S. Department of the Navy, FY18 Justification of Estimates, Aircraft Procurement, Volume II, Budget Activity 5, May 2017

Contracts/Orders & Options

<u>Contractor</u>	<u>Award</u> <u>(\$ millions)</u>	<u>Date/Description</u>
BAE Systems	17.1	Feb 2005 – Mod to a previously awarded FFP contract for the procurement of six low-band transmitters (LBTs) for the EA-6B. Completed in Nov 2007. (N00019-04-C-0122)
BAE Systems	10.0	Apr 2005 – A not-to-exceed mod to a previously awarded FFP contract for the procurement of eight LBTs for EA-6B aircraft. Completed by Mar 2008. (N00019-04-C-0122)
BAE Systems	52.5	Aug 2007 – Unfinitized contract to procure 36 LBTs, 18 V-Pol antennas, 25 H-Pol antennas, 17 Band 2 adapter interface assemblies, one RF test station, two antenna test stations, two transmitter test stations, and other equipment and services for the ALQ-99. Work completed Jan 2010. (N00019-07-C-0057)
L-3 Communications	10.1	Dec 2007 – Not-to-exceed ceiling priced order #5001 under a previously awarded contract to manufacture Band 5/6 OTWTs used on ALQ-99s. Work was completed in Sep 2011. (N00383-07-G-075B)
L-3 Communications	8.4	Dec 2007 – Not-to-exceed ceiling priced order #5000 under previously awarded contract N00383-07-G-075B to manufacture Band 4 DTWTs used on ALQ-99s. Work was completed in Oct 2011.
Lockheed Martin	8.9	Mar 2008 – Ceiling amount for fixed-price "level-of-effort requirements" contract for the repair of "dual lo" generators and low-phase noise oscillators for the ALQ-99. Work was scheduled to be completed in Mar 2013. (N000164-08-D-WS14)
Sensors and Antenna Systems (Cobham)	40.0	Jun 2008 – Not-to-exceed contract to procure 24 LBTs, 22 V-Pol antennas, 24 H-Pol antennas, 16 Band 2 adapter interface assemblies, and spare and repair parts for the ALQ-99. Work was to be completed in Jan 2012. (N00019-08-C-0046)
Sensors and Antenna Systems	36.7	Aug 2008 – Not-to-exceed mod to previously awarded contract to procure 27 LBTs, 25 V-Pol antennas, 27 H-Pol antennas, and 18 Band 2 adapter interface assemblies for the ALQ-99. Work was completed in Nov 2011. (N00019-08-C-0046)

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<u>Contractor</u>	<u>Award (\$ millions)</u>	<u>Date/Description</u>
Sensors and Antenna Systems	32.0	Jun 2009 – Not-to-exceed mod to previously awarded FFP contract to deliver 37 FRP II ALQ-99 LBTs for EA-6B aircraft. Work was completed in Nov 2011. (N00019-08-C-0046)
Sensors and Antenna Systems	46.0	Apr 2010 – FFP contract to deliver 60 FRP III ALQ-99 LBTs for EA-6B and EA-18G aircraft. Work was completed in Sep 2012. (N00019-10-C-0047)
Sensors and Antenna Systems	11.1	Mar 2011 – Mod to a previously awarded FFP contract to exercise an option for eight LBTs, 23 V-Pol antennas, and 14 H-Pol antennas for the ALQ-99 LBT. Work was expected to be completed in Jan 2014. The Naval Air Systems Command, Patuxent River, MD, was the contracting activity. (N00019-09-C-0019)
Sensor and Antenna Systems	39.0	Feb 2012 – Mod to a previously awarded FFP contract to exercise an option for 48 LBTs, 13 V-Pol antennas, and 28 H-Pol antennas associated with the ALQ-99 LBT. Was to be completed in Aug 2014. (N00019-10-C-0047)
Sensor and Antenna Systems	31.7	Nov 2012 – Mod to a previously awarded FFP contract to exercise an option for 22 LBTs, 16 V-Pol antennas, and 21 high-band H-Pol antennas for the ALQ-99 TJS for the U.S. Navy. Contract also covers 11 LBTs, seven V-Pol antennas, six Band 2 adapter interface assemblies, and eight high-band H-Pol antennas for the ALQ-99 TJS for the Australian government under an FMS. Work was to be completed in May 2015. (N00019-10-C-0047)
Sensor and Antenna Systems	21.8	Dec 2013 – Mod to a previously awarded FFP contract to exercise an option for eight LBTs, 11 V-Pols, and 17 H-Pols for the U.S. Navy's ALQ-99. In addition, the option provides for 11 LBTs, six V-Pols, six Band 2 adapter interface assemblies, and seven H-Pols for Australia's ALQ-99s. Work was expected to be completed in Jul 2016. The U.S. portion is 45.7 percent and the Australian portion, 54.3 percent. (N00019-10-C-0047)
Exelis	15.26	Jun 2014 – CPFF contract for the design engineering analysis, manufacture, and test of the universal exciter upgrade for the ALQ-99. Specifically, the contract covers the design and manufacture of three universal exciter components to eliminate the use of obsolete parts: the modulation direct digital synthesizer, the direct digital synthesizer, and the oscillator switch. Work is in support of the U.S. Navy (10 percent) and Australia (90 percent). Work was expected to be completed by Jun 2017. (N00164-13-G-WM01)
Sensor and Antenna Systems	10.14	Feb 2015 – CPFF, ID/IQ contract for transmitter software and firmware engineering services in support of the ALQ-99 tactical jamming system. Work is expected to be completed in Feb 2019. (N68936-15-D-0009)
Cobham Advanced Electronic Solutions	16.76	Sep 2016 – CPIF contract for the completion of an ECP for the ALQ-99 Low-Band Consolidation (LBC) system in support of the EA-18G. The effort modifies the existing LBT system, including the design, manufacture, integration, and test of the LBC kit, and requires the delivery of three test articles to support future qualification and testing of the modified transmitter, as well as applicable technical data. Work is expected to be completed in Sep 2018. (N00019-16-C-0007)

ALQ-99(V)**Timetable**

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
	1969	Initial EA-6B production
	1971	EA-6B sees combat in Vietnam
	1991	Final EA-6B production
	1998	EA-6B assumes joint mission responsibilities; EF-111A retired
Nov	2001	First flight of an ICAP III EA-6B; EA-18 makes first demonstration flight
2Q-2Q	FY02-03	Developmental testing
2Q-2Q	FY03-04	Operational assessment, start of TECHEVAL/OPEVAL
3Q	FY03	ICAP III LRIP decision, contract award
4Q	FY04	ICAP III OPEVAL completed
1Q	FY05	Start of LBT LRIP
2Q	FY05	ICAP III Milestone III, FRP award
2Q-4Q	FY05	FOT&E 1
3Q	FY05	ICAP III IOC
1Q	FY06	LBT IOC, LBT FRP decision, FRP start
1Q-3Q	FY06	FOT&E 2
Sep	2006	First test flight of EA-18G with ALQ-99 pods
	2009	EA-18G enters service
	2018	ALQ-99 production likely to cease
	2020	U.S. Navy's "in service" date for the Next Generation Jammer
	2030	Expected end of U.S. ALQ-99 O&M funding

Worldwide Distribution/Inventories

The U.S. Navy and Marine Corps use the ALQ-99. **Australia** converted six F/A-18E/Fs to ALQ-99-carrying EA-18G Growlers and is receiving more.

Forecast Rationale

Concurrent with production of the last U.S. Navy-destined EA-18G in 2018, the ALQ-99 will exit production. The ALQ-99 will be gradually withdrawn from use after its replacement, the Next Generation Jammer, enters LRIP in 2020. By the late 2020s/early 2030s, funding support for the ALQ-99 will conclude.

Although production of the ALQ-99 is ending this year, so long as it remains in use, it will receive O&M support. Those nations that operate the ALQ-99 consider the system to be a valuable EW tool, and will provide enough funding to keep the extant systems relevant and fully functional.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
Cobham Integrated Electronic Solutions												
ALQ-99 <> United States <> Navy <> EA-6 B/EA-18G												
	285	7	0	0	0	0	0	0	0	0	0	7
Total	285	7	0	0	0	0	0	0	0	0	0	7

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ESTIMATED CALENDAR YEAR O&M FUNDING (in millions US\$)												
Designation or Program		High Confidence				Good Confidence			Speculative			
	Thru 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
MFR Varies												
ALQ-99 <> United States & Australia <> EA-18G/EA-6												
	307.32	51.70	48.48	49.65	47.83	45.10	48.63	46.87	40.08	40.32	38.06	456.71
Total	307.32	51.70	48.48	49.65	47.83	45.10	48.63	46.87	40.08	40.32	38.06	456.71