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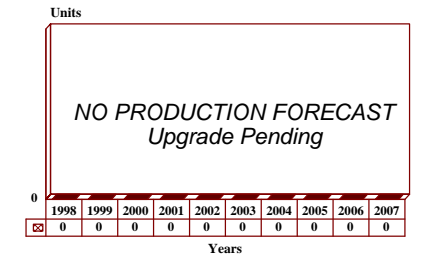
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ASC-15B(V)/C(V) - Archived 9/99

Outlook

- Production to fill most recent contract complete
- No additional production expected, but remains possible
- Retrofits with ARC-210(V) and ARC-222 radios pending

10 Year Unit Production Forecast
1998-2007



Orientation

Description. Airborne command and control system.

Sponsor

US Army

Communications - Electronics Command
Fort Monmouth, New Jersey (NJ)
USA

US Army

Aviation & Troop Command
St. Louis, Missouri (MO)
USA

Contractors

Rockwell International Corp

Collins Avionics & Communications Division
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(Prime: development and production)

Status. Production for the last contract is complete, although new systems can be constructed should an order arise.

Total Produced. An estimated 75 systems were produced through 1995.

Application. Tactical communications for command and control of deployed forces. Intended for airborne (mainly UH-60 Black Hawk) and ground-based installations.

Price Range. Adding the approximate prices of its components, a fully updated new ASC-15C (three ARC-210s and one ARC-222, plus ancillaries) would probably cost around US\$165,000 in 1998 dollars.

Technical Data

Design Features. The ASC-15B command and control system is designed to provide battlefield commanders with full control over secure and nonsecure AM and FM voice and data communications.

The ASC-15B also allows ground-based units and helicopter crews to communicate with each other. The system provides tri-service and NATO equipment interoperability.

The ASC-15B consists of three ARC-182(V) solid-state VHF-UHF AM/FM transceivers and one ARC-174(V)5 solid-state HF communication system. The ARC-182 is made up of the following components: three RT-1250 RTs, three C-10319 controls, two AM-7189A/ARCs, and two C-11188A/ARCs. The ARC-174(V)5 consists of the following: one each of RT-1433 RX/EX, AM-7202 PA/Cplr and C-11289 control; three T SEC/KY-58s; and one T SEC/KY-75. For ASC-15B ground operations, additional antennas and an auxiliary power unit are used. The weight of the system is 129.28 kg (285 lb).

The ASC-15C(V) version of the command and control console features three Rockwell-Collins ARC-210(V)s, the HAVE QUICK II-compatible and SINCGARS-compatible UHF/VHF radio to supersede its

ARC-182(V). In addition to HAVE QUICK II and SINCGARS, the ARC-210(V)1 was designed to be programmed or modified to provide HAVE QUICK IIA ECCM. The system also includes a remote controller for manual operation of the transceiver, a remote indicator, a data loader (loader-oscillator group) fill device and a family of broadband and electronically tunable antennas.

Operational Characteristics. The ASC-15B features frequency scanning, secure relay, satellite, and HAVE QUICK and SINCGARS Electronic Counter Counter-Measures (ECCM) capability. The system permits voice and data communications at nap-of-the-earth, overcoming line-of-sight restrictions. The system can operate in a very wide range of frequencies between 2 MHz and 400 MHz.

Variants/Upgrades

The ASC-15B(V) and ASC-15C(V) are themselves follow-ons to the initial version – ASC-15A(V) – which equipped UH-1 helicopters.

ARC-210(V) and ARC-222 Retrofits. The US Army procured seven ASC-15C systems, each of which incorporates three ARC-210(V)s in place of the precu-

sory ARC-182(V)s sold with the ASC-15B. The service has sought to retrofit its inventory of ASC-15Bs with the ARC-210(V)s, in order to upgrade them to the “C” configuration; in addition, the out-of-production ARC-174(V) remaining in all ASC-15 units will eventually see replacement with the Raytheon ARC-222. Funding, however, has been an obstacle.

Program Review

Background. In 1986, the US Army awarded Rockwell a US\$12 million contract for the production of several ASC-15Bs; engineering models of the system were delivered in mid-1987. This contract was followed by three more in FY87 and FY88 for a total of 26 additional systems. Between September 1990 and January 1991, ten systems were ordered to support Operation Desert Storm. Other contracts followed: a US\$16.5 million award in April 1991 and a US\$1 million award in September of that year. The latest contract, awarded in September 1992, was for seven of the newer ASC-15C(V) consoles. Production to fill this contract is presumed complete as of mid-1995.

Both the ASC-15B(V) and ASC-15C(V) combine the primary tactical radios employed by the Army and Navy to coordinate operations in which deployed forces comprise various US services and commands. The December 1989 operations to capture Panama's General Manuel Noriega provided ample opportunity to employ the ASC-15B(V) in directing ground and air assets. The system also received a thorough operational workout during ground operations into southern Iraq during the Gulf War by elements of the 82nd Airborne and 101st Airmobile divisions.

The Army is currently working on a follow-on project called the Army Airborne Command and Control System (A2C2S) which, when mounted on a UH-60 helicopter with auxiliary equipment, provides tactical voice, data, and imagery digitized battlefield communications in both secure and nonsecure modes for corps, division, and brigade commanders. Interoperability is enhanced with this system by providing the capability to communicate digitally with Navy or Air Force close air support as well as relaying target information. It is meant to provide command and control for disaster relief, peacekeeping, drug interdiction, and missions of both high- and low-intensity conflict.

The C² Black Hawk was originally slated to be equipped with the newer ASC-15C(V) console, along with new HF radios, SATCOM receivers, a data modem for transmitting data to and from AH-64 Apache attack helicopters, and a Forward-Looking Infrared (FLIR) to provide the UH-60 with a night vision and navigation capability similar to that of the AH-64.

The Army's A2C2S program was funded as a new start in FY94. Work is being performed under PE#0604201A, Project DC97 Aircraft Avionics. On this program the Army has enlisted the help of the

Naval Research Laboratory, which has come up with a command and control console called the Commander Situational Awareness Workstation (CSAW). Not only is the CSAW lighter (45 kg as opposed to 550 kg) and more streamlined than the multicomponent ASC-15C, but a prototype of it was demonstrated to outperform the older device in Desert Hammer VI, a status test of the Army's battlefield digitization effort staged in April 1994.

The Army has made no secret that it would like to clean house and replace its inventories with advanced, ex-

pandable, and multicompatible equipment that can enjoy several years in use. The ASC-15 may ultimately be replaced by a more advanced system like CSAW. On the other hand, the Army may find itself with a sufficiently capable system if its entire ASC-15 inventory is uniformly upgraded with ARC-210 and ARC-222 radios (to replace existing ARC-182s and ARC-174s, respectively). The matter should be resolved by the time an A2C2S production contract, which is to be competitively awarded in FY01, is announced.

Funding

No funding has been identified for further ASC-15B/C procurement or the planned upgrades.

Recent Contracts

Contractor	Award (\$ millions)	Date/Description
Rockwell Collins	5.3	Sep 1992 – FFP mod for seven ASC-15C(V) command and control consoles with associated installation kits, antenna groups, installation effort, technical data and spares. Completed Jun 1995. (N00019-95-C-0004)

Timetable

Month	Year	Major Development
Nov	1986	Initial contract awarded to Collins
Jul	1987	Airworthiness qualification; commencement of user testing
Sep	1987	User testing complete
Jan	1991	Used in Persian Gulf War
Sep	1992	Most recent order for ASC-15C(V) received
FY	1994	A2C2S funded as a new start
Jun	1995	Last ASC-15C delivered under 1992 contract
FY	2001	A2C2S production contract slated to be awarded

Worldwide Distribution

The US Army has been the major procurer of ASC-15B(V) and ASC-15C(V) equipment (about 48 and 7 systems, respectively). **South Korea** has been the only export customer (an estimated 20 ASC-15C systems).

Forecast Rationale

While it was once a key element of the Army Airborne Command and Control System, the latest variant of the ASC-15 – the C(V) configuration that replaces the ARC-182(V) subsystems with the ARC-210(V) – has not been produced since the delivery of seven complete

systems in the mid-1990s. The Army has since been waiting for adequate funding to upgrade its earlier ASC-15B systems to this standard (and also to improve its ASC-15Cs by replacing existing ARC-174(V)s with

ARC-222 radios), but such assistance has not yet arrived.

Upgrades to keep the ASC-15s viable in service are thus the focus of activity with this program. This should

suffice until a new A2C2S enters production around FY01. For future requirements, however, the manufacture of additional ASC-15Cs is still possible, particularly if they incorporate both of the newer radios.

Ten-Year Outlook

No additional production is forecast at this time, though future production should not be ruled out. If no activity occurs during the next 12 months, this report then will be archived.

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