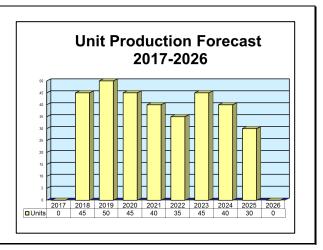
# ARCHIVED REPORT

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# **ARC-190(V)**

#### **Outlook**

- Forecast International projects that Rockwell Collins will sell more than 300 ARC-190 radios to the U.S. DoD over the next 10 years
- This forecast is quite conservative, however, as no detailed contract or sales information for the ARC-190 has recently been reported
- Expect sales of ARC-190 radios to peak in 2019
- Should defense spending increase, look for sales of ARC-190s to increase as well



#### **Orientation**

**Description.** The ARC-190 is an airborne military radio manufactured by Rockwell Collins. It is software-operated.

#### **Sponsor**

Rockwell Collins Inc 400 Collins Rd NE Cedar Rapids, IA 52498-0001 USA

Tel: +1 (319) 295-1000 Fax: +1 (319) 295-5429 **Status.** In service and available for sale.

**Application.** Communications.

**Price Range.** Forecast International estimates the price of one ARC-190 airborne military radio to be \$63,000. This amount is speculative.

**Note:** Among other factors, price appears to vary according to the number of radios ordered (the larger the quantity ordered, the lower the price).

# **Contractors**

#### **Prime**

Rockwell Collins Inc	http://www.rockwellcollins.com, 400 Collins Rd NE, Cedar Rapids, IA 52498 United States, Tel: + 1 (319) 295-1000, Fax: + 1 (319) 295-5429, Prime
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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

#### **ARC-190(V)**

#### **Technical Data**

Dimensions	<u>Metric</u>	<u>U.S.</u>				
RT-1341(V)	19.35 cm x 25.72 cm x 48.41 cm	7.62 in x 10.12 in x 19.06 in				
C-10828(V) remote control	6.67 cm x 14.61 cm x 11.43 cm	2.62 in x 5.75 in x 4.50 in				
CU-2275(V) antenna coupler	18.80 cm x 21.11 cm x 54.48 cm	7.40 in x 8.31 in x 21.45 in				
Weight						
RT-1341(V)	23.60 kg	52 lb				
C-10828(V)	0.68 kg	1.5 lb				
CU-2275(V)	10.89 kg	24 lb				
Characteristics						
Frequency range	2.0 MHz - 29.9999 MHz (100-Hz increments)					
No. of channels	280,000					
Preset channels	30					
Operational modes	USB, LSB, AME, CW, data USB, data LSB					
Power output	400 W PEP or average					
AFSATCOM filtering	240 MHz - 272 MHz; -140 dB					

The ARC-190(V) airborne military radio provides up to 280,000 manually selected frequency combinations or 30 preset channels. The frequency range is 2 MHz to 30 MHz in 100-Hz increments. Upper sideband, lower sideband, AM equivalent, continuous wave, data upper sideband, and data lower sideband modes are available. Transmitter power output is 400 watts peak envelope power or average.

The ARC-190(V) is designed to operate up to an altitude of 70,000 feet at temperatures between -54°C and +71°C. Aircraft-supplied cooling is required above 50,000 feet. Average power output is 400 watts, but

power consumption is 1,600 watts with aircraft-supplied cooling air and 150 watts in the receive mode.

The ARC-190(V) can be operated using a single control or dual controls. Serial data control between each of the system's elements provides simple integration with future adaptive communications hardware. Optional equipment includes a digitally tuned pre-selector and a variety of digitally tuned antenna couplers that permit the radio to be used on almost all U.S. Air Force strategic aircraft. The unit's built-in test equipment and solid-state modular construction give it a mean time between failures of more than 1,200 hours.

# Variants/Upgrades

**ARC-190(V)X Extended Range.** This version extends the system's frequency range and functional capabilities, including fast frequency hopping to counteract jamming and meteor burst capabilities

(of particular utility in a nuclear-stressed environment). The extended frequency range covers 2 MHz to 100 MHz. The number of selectable receive/transmit channels is upped to 980,000, with 64 of these preset.

# **Program Review**

In July 1996, the U.S. Air Force awarded Rockwell a \$6.74 million contract to provide 216 Automatic Communications Processor Group B kits in support of the ARC-190 radio on KC-135 aircraft. Work under this contract was completed in September 1997.

In July 1998, the U.S. Air Force awarded Rockwell a \$7.5 million contract to design, develop, and produce 24 upgrade kits in support of the ARC-190 radio on C-130H and C-130H-30 aircraft. Contract work was completed in October 2001.

# **Contracts/Orders & Options**

No recent contracts have been identified.

#### **Timetable**

<u>Year</u>	<u>Major Development</u>
1979	Development initiated
1980	First U.S. Air Force installations
1985	Automatic communications processor for ARC-190(V) contracted by U.S. Air Force
1988	Automatic communications processor incorporated into ARC-190(V)
1991	Last of E-6A aircraft with ARC-190(V)s delivered to U.S. Navy
1995	ARC-190 integration program begun for KC-135 upgrade
2001	Delivery of 24 ARC-190(V) upgrades to Egypt completed

### **Worldwide Distribution/Inventories**

The ARC-190(V) is employed by Egypt, Germany, Saudi Arabia, the U.S. Air Force, and the U.S. Navy.

#### **Forecast Rationale**

Information regarding the ARC-190 airborne military radio is scarce.

The most recent publicly announced contract for Rockwell's ARC-190 was awarded in 1998, when the U.S. Air Force awarded Rockwell \$7.5 million to design, develop, and produce 24 upgrade kits for the radio. Work was completed in October 2001.

ARC-190 radio buys are being driven by U.S. DoD demand for airborne communications, and by the

cancellation of the Airborne and Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) program.

With defense budgets being cut throughout the world, FI looks for procurements of airborne communications systems to recede. Should global defense expenditures begin to veer upward, look for sales of airborne communications systems, including the ARC-190, to rise.

# **Ten-Year Outlook**

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program		High Confidence			Good Confidence			Speculative				
	Thru 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Rockwell Collins Inc (Prime)												
ARC-190 Military <> United States <> Department of Defense												
	0	0	45	50	45	40	35	45	40	30	0	330
Total	0	0	45	50	45	40	35	45	40	30	0	330