ARCHIVED REPORT

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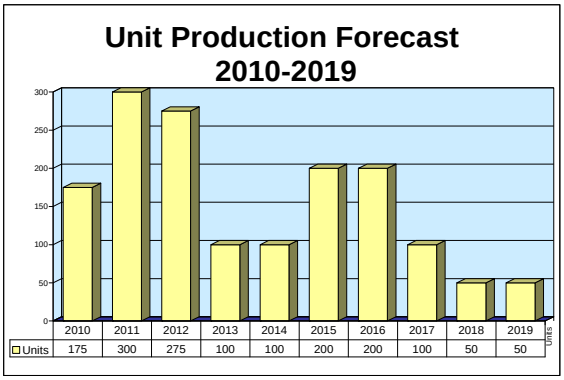
RF-300S - Archived 3/2011

Outlook

- Forecast International expects Harris to sell nearly 1,550 RF-300S Secure Personal Radios over the next 10 years
- To date, no RF-300S sales or contract information has been disclosed
- Harris projected to market its RF-300S to fill the emerging "military-civilian" communications market niche



Orientation

Description. The RF-300S is a body-worn, software-operated military radio manufactured by Harris Corporation. The RF-300S fits easily in a vest pocket.

Sponsor

Harris Corporation
RF Communications Division
1680 University Ave
Rochester, NY 14610 USA
Tel: + 1 (585) 244-5830
Fax: + 1 (585) 244-2917
Web site: http://www.rfcomm.harris.com/

Status. The RF-300S is currently available for sale.

Application. Communications

Price Range. Forecast International estimates the price of one RF-300S military radio to be $3,250. This dollar amount is highly speculative.

Contractors

Prime

Harris RF Communications Division	http://www.rfcomm.harris.com, 1680 University Ave, Rochester, NY 14610 United States, Tel: + 1 (585) 244-5830, Fax: + 1 (585) 242-4755, Email: RFComm@harris.com, Prime

Comprehensive information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to www.forecastinternational.com (see Products & Samples/Governments & Industries) or call + 1 (203) 426-0800.

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

RF-300S

Technical Data

General

Frequency Range: 225-470 MHz

Channel Spacing
- Narrowband: 12.5 KHz
- Wideband: 1.2 MHz

Net Presets: 100
Data/Control Interfaces: USB 2.0
GPS: Integral Commercial Receiver
Frequency Stability: 0.5 ppm
Frequency Tuning: 12.5 kHz

Narrowband Modes

Narrowband Waveforms: P25 Conventional Mode

Voice Modes
- Simplex or Half-duplex
- IMBE vocoder

Security: 256 bit AES – FIPS 140-2

Wideband Modes

Applications
- Harris Secure Wideband Mode (ANW2)
- Soldier Radio Waveform (SRW)

Voice Modes: Half and full duplex with multiple speakers MELPe Vocoder
Security: AES-256

Software

Operating Environment: Joint Tactical Radio System Software Communications Architecture (SCA) V2.2.2

Situational Awareness
- Harris Cursor on Target Format Compatible
- Harris Ground Force Tracker (GFT) Application

Management Tool: Windows-based Radio Programming Application (RPA)

Power

Power Input: 3.6 VDC nominal
Battery Types: Rechargeable lithium ion - e.g. Land Warrior, BB-5590, AN/PRC-152 HH Battery

Physical and Environmental

Size: 25 $in.^3$
Weight: 1 lb. (R/T Only)
Temperature Range: -30° to 60°C
Shock/Vibration: MIL-STD-810F for man-portable
Immersion: 2 m
Color: 34094 Green per FED-STD-595B
EMI/RFI: MIL-STD-461F

Transmitter

Power Output: 100 mW to 4 W adjustable
Antenna Outputs: TNC, 50 Ohm nominal

Receiver

Narrowband Sensitivity (P25): -116 dbM for 12 dB SINAD
Adjacent Channel Rejection: 50 dB (50 kHz off channel)

Accessories

- UHF whip antenna 225-470 MHz
- GPS Antenna
- Rechargeable lithium ion battery pack
- Operator's card
- Lightweight headsets
- MOLLE Vest Holster
- Soldier System Integration

Harris manufactures the RF-300S military radio.

Source: Public Domain

Program Review

Harris RF-300S Secure Personal Radio Enters Marketplace

On August 19, 2008, at the LandWarNet conference held in Fort Lauderdale, Florida, Harris Corporation introduced its RF-300S Secure Personal Radio to the marketplace. Designed for the U.S. Department of Defense, the RF-300S is a wearable military radio that is small enough to fit into a soldier's vest pocket.

According to the manufacturer, the RF-300S radio provides secure voice and data communications to the individual soldier and is based on the Joint Tactical Radio System Software Communications Architecture (SCA). The radio's software-defined platform operates a range of communications waveforms, including the developing wideband Soldier Radio Waveform (SRW) and the Harris Advanced Wideband Networking Waveform (ANW2) for networked communications.

The RF-300S also runs the Association of Public-Safety Communications Officials International (APCO) Project 25 (P25) waveform, allowing the radio to communicate with radios used by emergency first responders such as fireman.

In October 2008, Harris announced it had demonstrated voice and data wideband interoperability between four integrated Harris Corporation PRC-117G manpack radios – in a vehicular adapter – and the Harris RF-300S Secure Personal Radio. The demonstration was conducted at the Association of the U.S. Army Annual Meeting and Exposition, October 6-8, 2008. A four-channel ground mobile system is one of the future applications of the U.S. Department of Defense Joint Tactical Radio System (JTRS) program.

Funding

Harris Corporation.

Contracts/Orders & Options

No RF-300S radio contract information has been made public.

Timetable

Month	Year	Major Development
Aug	2008	RF-300S radio introduced to the marketplace
Oct	2008	Communications capability demonstrated between four integrated PRC-117G manpack radios – in a vehicular adapter – and the RF-300S Secure Personal Radio

Worldwide Distribution/Inventories

To date, no sales information regarding the RF-300S Secure Personal Radio has been disclosed.

Forecast Rationale

The RF-300S is a body-worn, software-operated military radio manufactured by Harris Corporation. The radio is based on the Joint Tactical Radio System Software Communications Architecture (SCA).

FI: RF-300S Has Potential to Fill 'Military Civilian' Market Niche

As indicated by the **Ten-Year Outlook** chart, Forecast International expects Harris to sell some 1,550 RF-300S Secure Personal Radios to defense departments

RF-300S

worldwide over the next 10 years. According to Harris, the RF-300S is designed to address the emerging requirements of the U.S. Department of Defense, such as the Rifleman Radio program.

The RF-300S Secure Personal Radio provides the warfighter with wideband data and narrowband voice capabilities, covering a frequency range from 225 MHz to 470 MHz. The radio also incorporates a Global Positioning System receiver for position tracking and messaging services.

The RF-300S is secured using the Suite-B algorithms, including Advanced Encryption Standard (AES) for encryption, which allows interoperability with other Suite-B-enabled communication products. According to Harris, properly implemented Suite-B algorithms can provide protection of information up through the classified secret level in a non-cryptographic controlled item (CCI) environment, eliminating the need for every soldier to have a security clearance. Harris Corporation plans to submit the RF-300S to the U.S. Government for evaluation for use in non-CCI, secret and below applications.

According to George Helm, vice president and general manager, U.S. Government Products, Harris RF Communications, "The Falcon III RF-300S will deliver new levels of voice and high-bandwidth data connectivity to the entire squad. By combining P25 and the Soldier Radio Waveform, the radio offers great operational flexibility, ease of migration as standards change, and interoperability. Interoperability with currently deployed narrowband radios is critical to allow a smooth transition to a networked force until adequate spectrum is available to support a large number of users."

New publicly available information regarding Harris Corporation's RF-300S is sparse (a Harris press release dated October 6, 2008, is the latest information FI has been able to obtain). That said, FI believes Harris will market its RF-300S Secure Personal Radio for use in urban environments. Moreover, since the radio runs the Association of Public-Safety Communications Officials International (APCO) Project 25 (P25) communications waveform, the RF-300S is expected to fill the emerging "military-civilian" radio market niche.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program		**High Confidence**				**Good Confidence**			**Speculative**			
	Thru 2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**Total**
Harris RF Communications Division (Prime)												
RF-300S <> Worldwide <> Department of Defense												
	0	175	300	275	100	100	200	200	100	50	50	1,550
Total	0	175	300	275	100	100	200	200	100	50	50	1,550