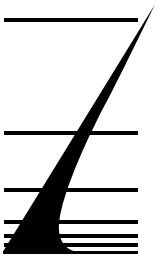
The Market for Multimission Communications Systems

Product Code #F635

A Special Focused Market Segment Analysis by:



FORECAST INTERNATIONAL

Analysis 2
The Market for Multimission Communications Systems 2010-2019

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PROGRAMS

The following reports are included in this section: (**Note:** a single report may cover several programs.)

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Bowman
C^3 Technology (U.S. Army)
Defense Advanced GPS Receiver (DAGR)
Defense Message System (DMS)
FBCB2-BFT
Fleet Communications
Joint Tactical Radio System (JTRS)
MicroLight
Minimum Essential Emergency Communications Network (MEECN)
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PRC-150
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RF-300S
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RF-7800S
RF-7800V
SINCGARS
Soldier Radio
Spearhead
SpearNet Team Member Radio

Introduction

Background. This Forecast International analysis examines multimission communications systems – military communications systems that could be installed in multiple platforms and configured in more than one way. For example, the PRC-117 could be carried on the back of a dismounted soldier, installed in a vehicle, mounted in a helicopter, or configured on the ground as a base station radio.

Multimission communications systems are becoming increasingly sophisticated. These systems allow military personnel to communicate not only with one another, but also with "machines" (e.g., sensors, weapons systems, etc.), as well as allowing machines to communicate with other machines.

Multimission communications systems can be sorted into two general categories: traditional and software-operated. Traditional multimission communications systems send and receive communications signals via *hardware*. Software-operated systems send and receive communications signals via *software*.

Method. For the purpose of this analysis, Forecast International defines the multimission communications market as the 26 systems or programs listed below (also see Table 2). Consequently, this study does not examine every multimission communications product being developed or manufactured, nor does it look at every multimission communications program in existence.

"The Market for Multimission Communications Systems" integrates data gathered by Forecast International from open, unclassified sources throughout the world. The information is collected from government agencies, company officials, industry experts, defense publications, and a variety of other sources.

Forecast International generated the statistics for this analysis on June 16, 2010. These statistics represent a "snapshot in time" of the projected 10-year market performance of the 26 systems or programs listed below.

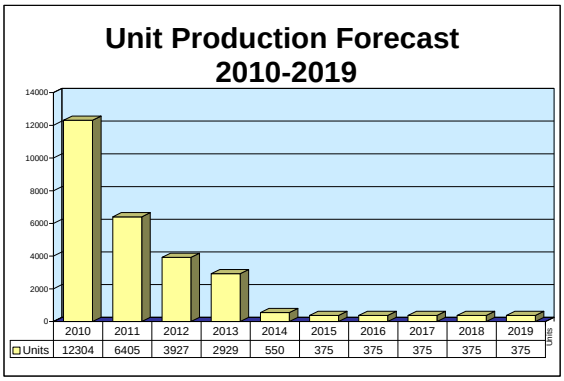
System/Program	Prime Contractor
PRQ-7	Boeing
PRC-343 (H4855)	Finmeccanica
Bowman	General Dynamics
PRC-117	Harris
PRC-150	Harris
PRC-152	Harris
RF-300S	Harris
RF-7800M	Harris
RF-7800S	Harris
RF-7800V	Harris
PRC-119	ITT
Soldier Radio	ITT
SpearNet Team Member Radio	ITT
Spearhead	ITT
Defense Message System (DMS)	Lockheed Martin
FBCB2-BFT	Northrop Grumman
Enhanced Position Location Reporting System (EPLRS)	Raytheon
MicroLight	Raytheon
Defense Advanced GPS Receiver (DAGR)	Rockwell Collins
PRC-148	Thales
PR4G	Thales
All Source Analysis System (ASAS)	Manufacturer Varies
C3 Technology (U.S. Army)	Manufacturer Varies
Fleet Communications	Manufacturer Varies
Minimum Essential Emergency Communications Network (MEECN)	Manufacturer Varies
Joint Tactical Radio System (JTRS)	Manufacturer Varies

* * *

PRC-117

Outlook

- FI expects Harris Corporation to sell about 27,990 PRC-117F(C) and PRC-117G(C) radios over the next 10 years
- Procurement propelled by communications needs of the U.S. Marine Corps, Air Force, Army, Navy, and Australian Department of Defense
- ITT's PRC-119 radio (SINCGARS) is projected to compete against Harris' PRC-117F(C) and PRC-117G(C) radios in the future



Orientation

Description. The PRC-117 is a manpack, vehicular, and base station military radio manufactured by Harris Corporation. The PRC-117 is software-operated.

Status. In production.

Application. Communications

Price Range. According to an FY10 U.S. Navy budget document (dated May 2009), the price of one PRC-117F(C) radio in a vehicle configuration is $30,454 in FY09 dollars.

According to an FY11 U.S. Army budget document (dated February 2010), the price of one PRC-117F(C) radio is $56,500 in FY10 dollars. According to the same document, the price of one PRC-117G(C) radio is $60,000 in FY09 dollars. According to an FY11 U.S. Navy budget document (dated February 2010), the price of one PRC-117F(C) radio is $39,000 in FY09 dollars.

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

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

PRC-117

Technical Data

PRC-117G(C)

General

Frequency Range

- Total Range: 30 MHz to 2 GHz
- Narrowband (NB):
  VHF low – 30 to 90 MHz
  VHF high – 90 to 225 MHz
  UHF low – 225 to 512 MHz
- SATCOM – UHF low:
  243 to 270 MHz and 292 to 318 MHz
- Wideband (WB): UHF 225 MHz to 2 GHz

Channel Spacing

- NB: 5 kHz, 6.25 kHz, 8.33 kHz, 12.5 kHz, 25 kHz
- SATCOM: 5 kHz, 25 kHz
- WB: 500 kHz, 1.2 MHz, 2.5 MHz, 5 MHz

Net Presets: 100

Data Interfaces: Ethernet, RS-232/RS-422 Synchronous and Asynchronous

Management Tool: Windows-based Radio Programming Application

Software Environment: JTRS SCA 2.2

Integral GPS: GRAM SAASM

Frequency Stability: 0.5 ppm

Frequency Tuning

- 10 Hz from 30 MHz to 512 MHz
- 100 Hz from 513 MHz to 2 GHz

Remote Control: RS-232 ASCII based

Narrowband Modes

Narrowband Waveforms

- Narrowband AM/FM
- SINCGARS
- Havequick I and II

Satcom Waveforms

- UHF SATCOM
- HPW
- MIL-STD-188-181B Dedicated Channel

Voice and Data Modes

- Simplex or Half-duplex
- MIL-STD-188-113 CVSD
- STANAG 4198 LPC-10e
- STANAG 4591 MELPe

Security

Encryption: Sierra® II Type-1

Encryption Modes: KY-57, KYV-5, KG-84

Key Fill Device Compatibility: CYZ-10 DTD, KOI-18, KYK-13, KYX-15, MX-18290

Power

Power Input: 18 VDC to 34 VDC

Power Consumption: 65 W max

Battery Types: BA-5590/U, BA-5390/U, BB-590/U, BB-390/U, BB-2590/U

Physical and Environmental

Size

- 5.8W x 3.2H x 8.2D inches (no battery)
- 5.8W x 3.2H x 12.5D inches (with battery)

Weight: 7.5 pounds (without battery)

Shock/Vibration: MIL-STD-810F for tracked vehicles, wheeled vehicles, shipboard

Immersion: 1 meter

Transmitter

Power Output

- NB: 10 W
- SATCOM: 20 W
- WB: 20 W peak/1-5 W average

Antenna Outputs

- NB: 30 MHz to 512 MHz
- SATCOM: 243 MHz to 318 MHz
- WB: 225 MHz to 2 GHz

Harmonic Suppression: Greater than 50 dBc

Receiver

Narrowband Sensitivity (for 10 dB SINAD)

- LOS FM 30-512 MHz: -118 dBm
- LOS AM 90-512 MHz: -110 dBm with 70% modulation
- TACSAT FM 243-270 MHz: -120 dBm

Adjacent Channel Rejection

- 60 dB referenced to 10 dB SINAD (50 kHz channel)
- 60 dB referenced to 10 dB SINAD (50 kHz channel)
- UHF: 50 dB (50 kHz off channel)

PRC-117F(C)

General

Frequency Range

- Total Range: 30-512 MHz
- VHF Low: 30.000 to 89.999 MHz
- VHF High: 90.000 to 224.999 MHz
- UHF: 225.000 to 512.000 MHz
- UHF SATCOM: 243.000 to 270.000 and 292.000 to 318.000 MHz

Channels

- Resolution: 10 Hz
- AM Spacing: 8.33, 12.5, 25 kHz
- FM Deviation: 5, 6.25, or 8.0 kHz

Preset Channels

- 100 Fixed/Hopping presets
- 10 DAMA presets

Modulation

- VHF Low: FM, FSK, TCM
- VHF High: FM, AM, FSK, ASK
- UHF: FM; AM, FSK, ASK
- UHF SATCOM: BPSK, SBPSK, SOQPSK, DEQPSK, CPM

Power Supply

- 26 VDC Nominal, accepts two BA-5590, BB-390A/U, BB-2590, or BB-590 batteries

Environmental

- Shock/Vibration: Ground mobile environment
- Immersion: 1 m of water
- Operating Temperature: -40°C to +70°C
- Altitude: Operate to 15,000 ft (after storage, 40,000 ft)

Size (maximum envelope)

- 3.2H x 10.5W x 9.6D in (w/o battery case)
- 3.2H x 10.5W x 13.5D in (w/battery case)

Weight

- 15.9 lb (w/2 BA-5590 batteries and battery case)
- 9.8 lb (w/o batteries or battery case)

Voice Modes

- Simplex or Half-duplex
- SINCGARS ECCM (VHF Low band only) Plain Text Analog Voice
- Wideband Cipher Text Digital Voice (16 kbps; CVSD; KY-57); 12 kbps Fascinator
- Narrowband Cipher Text Digital Voice (2.4 kbps; LPC-10), MELP, ANDVT/KYV-5, KG-84
- Have Quick I/II ECCM (UHF band only)

Data Over-the-Air in Cipher Text (CT)

Line-of-Sight (LOS) Data Capabilities

- KG-84 (Sync Data) 16 kbps, KG-84 (w/HPW option) up to 64 kbps
- Fascinator: 12 kbps

SATCOM Compatibility

- MIL-STD-188-181B Dedicated Channels (SA)
- MIL-STD-188-182 rev (-) & rev (A) 5 kHz DAMA
- MIL-STD-188-183 rev (-) & rev (A) 25 kHz DAMA
- MELP-5 kHz dedicated SATCOM & DAMA

COMSEC Interoperability

- KY-57 VINSON, ANDVT/KYV-5 (Mode 3), KG-84C (Modes 1, 2, 3, 4), Fascinator 12 kbps

COMSEC Features

- One Cryptographic Ignition Key (CIK) KDU, OTAR & OTAT, storage for 75 Traffic Encryption Keys, with associated KEK, and 50 Transmission Security Keys

COMSEC Fill Devices

- KYK-13, KOI-18, KYX-15, CYZ-10, SKL, supporting DS-101, DS-102/RDS, and CT-3 fill formats

GPS Capability

- External dedicated interface, DOD PLGR/DAGR and NMEA-183 commercial GPS devices

Remote Control Capability

- ASCII, with full remote control – RS-232E or RS-422 balanced interface
- Removable Keypad/Display Unit (KDU) up to 250 ft

Transmitter Specifications

Output Power

- 30-90 MHz FM: 1-10 W PEP and Avg.
- 90-400 MHz FM: 1-20 W PEP and Avg.
- 90-400 MHz AM: 1-20 W PEP (10 W Avg.)
- 400-512 MHz FM: 1-10 W PEP and Avg.
- 400-512 MHz AM: 1-10 W PEP (4 W Avg.)
- UHF TACSAT: FM: 2-20 W PEP and Avg.

Output Power Selection

- Variable in 1 dB steps

Harmonic Suppression

- Greater than 40 dBc

Receiver Specifications

Sensitivity

- VHF LOW FM: -118 dBm for 10 dB SINAD
- VHF HIGH FM: -118 dBm for 10 dB SINAD
- VHF HIGH AM: -110 dBm for 10 dB SINAD, 70% modulation
- UHF FM: -117 dBm for 10 dB SINAD (225 - 243 MHz and 270 - 512 MHz)
- UHF AM: -110 dBm for 10 dB SINAD, 70% modulation
- UHF TACSAT: FM: -120 dBm for 10 dB SINAD

PRC-117

Adjacent Channel Rejection

- 60 dB referenced to 10 dB SINAD (50 kHz channel)
- VHF = 60dB (50 kHz off channel)
- UHF = 45dB (50 kHz off channel)

Harris manufactures the PRC-117 radio.

Source: Public Domain

Variants/Upgrades

Variants of the Harris PRC-117 include the PRC-117(C), PRC-117A, PRC-117B, PRC-117B(C), PRC-117C, PRC-117D, PRC-117D(C), PRC-117D(E), PRC-117E, PRC-117F, PRC-117F(C), PRC-117G, and PRC-117G(C).

Program Review

Harris Corporation introduced its PRC-117F(C) radio to the marketplace in 1999. In January 2000, Harris announced that the Space and Naval Warfare Systems Command had awarded the company a $1-million-plus contract to manufacture and deliver PRC-117F(C) radios for U.S. Navy operations. Radio deliveries under this contract began in February 2000.

PRC-117F(C) Receives NSA Certification

In February 2000, Harris Corporation announced that the National Security Agency (NSA) had certified the information security (INFOSEC) features of the Harris PRC-117F(C) radio to pass voice and data traffic up through the Top Secret level. During the same timeframe, the PRC-117F(C) radio received certification for Demand-Assigned Multiple Access (DAMA) capabilities. DAMA technology is used by the military for UHF satellite communications to make more efficient use of limited radio frequency spectrum.

Harris Receives First Non-U.S. Contract for PRC-117F(C)

In February 2000, Harris announced that the U.K. Ministry of Defence (MoD) had awarded the company a $5 million contract to manufacture and deliver the PRC-117F(C) radio. The U.K. MoD contract marked the first purchase of PRC-117F(C) radios outside the United States.

Pentagon Selects PRC-117F(C) for JTRS Testing

In May 2000, Harris announced that the U.S. DoD had selected the PRC-117F(C) to validate the Software Communications Architecture (SCA) of the Joint Tactical Radio System (JTRS). The related contract was valued at $2.4 million.

In October 2000, Harris announced that it had successfully demonstrated the PRC-117F(C) radio for the En Route Mission Planning and Rehearsal System (EMPRS) exercise at the U.S. Army Communications-Electronics Command's Joint Contingency Force Advanced Warfighting Experiment. The EMPRS establishes real-time, in-transit communications between ground command and deploying airborne units.

More PRC-117F(C) Orders

In February 2001, Harris announced that it had been awarded a $19 million contract from the New Zealand Ministry of Defense (through CECOM) to manufacture and deliver Harris RF-5800H and PRC-117F(C) radios. The radios were purchased to support the New Zealand Army and Royal New Zealand Air Force ground operations.

In April 2001, Harris announced that the U.S. Air Force's Electronics System Center had awarded it an $11 million contract to equip Tactical Air Control Party squadrons at Hanscom Air Force Base, Massachusetts, with PRC-117F(C) radios.

In June 2002, Harris announced the availability of an embedded, fully secure, satellite communications (satcom) Internet Protocol (IP) capability for its PRC-117F(C) radio. The embedded satcom IP capability eliminates the dependency on expensive external interface boxes used to link to an IP network.

In February and April 2003, Harris delivered PRC-117F(C) radios to the U.K. MoD under a $5.3 million contract. The radio delivery was part of an MoD Urgent Operational Requirement. The PRC-117F(C) radios purchased under the contract were used by the MoD Permanent Joint Headquarters to augment communications for operations in the Middle East.

In June 2004, Harris announced that the French Ministry of Defense had awarded the company multiple contracts to manufacture and deliver the PRC-117F(C) radio. These contracts marked France's first orders for the PRC-117F(C).

In October 2005, Harris announced that the U.S. Marine Corps had awarded it a contract to manufacture and deliver the PRC-117F(C) radio. This multiyear blanket purchase agreement has a potential value of $205 million. The contract was awarded under the U.S. Marine Corps' Multiband, Multimission Radio (MBMMR) standardization program.

In November 2005, Harris announced it had been awarded a $4.8 million contract from the U.S. Central Command Air Force for PRC-152 and PRC-117F(C) radios. The U.S. Air Force will use the radios to support operations in Iraq and Afghanistan.

In March 2006, Harris disclosed that the U.S. Marine Corps had ordered PRC-150(C) and PRC 117F(C) radios, at an estimated cost of $140 million, under two previously announced contracts. These radio systems will allow the Marine Corps to replace its legacy PRC-104, PRC-113, and PSC-5 radios.

PRC-117F(C) Sales Explode; Harris Introduces PRC-117G(C)

In August 2006, Harris Corporation announced that Germany's Ministry of Defense had awarded Harris a $2.5 million contract to manufacture and deliver the PRC-117F(C) radio. The PRC-117F(C) will provide Germany's MoD with significant improvements in interoperability with NATO countries and other key coalition partners.

Also in August, Harris announced that the U.S. Marine Corps had awarded it a $69 million delivery order under a previously awarded contract for the PRC-117F(C) radio. The initial contract was awarded under the Marine Corps' MBMMR standardization program.

In September 2006, Harris received a General Services Administration delivery order under a previously awarded contract (M67854-06-A-7033) for spares specific to the Marine Corps' MBMMR, part number 10513-0010-01 (also known as the PRC-117F(C)) and the MBMMR vehicular adaptor/power amplifier (the VRC-103(V)1. This delivery order was scheduled to be completed in September 2007.

In October 2006, Harris announced that it had been awarded a $46 million contract from the U.S. Army to supply PRC-117F(C) radios. During the same month, the company introduced its PRC-117G(C) radio (then known as the RF-300M-MP) to the marketplace. Among its updates, the PRC-117G(C) possesses about four times the frequency range of the PRC-117F(C).

In February 2007, Harris Corporation announced it had received a contract from the U.S. Navy to manufacture and deliver the VRC-110, VRC-103 (which includes the PRC-117F(C) radio), and VRC-104 vehicular radio systems. These radio systems will be installed in the Joint Explosive Ordnance Disposal Rapid Response Vehicles that provide the U.S. Navy Expeditionary Combat Command forces with improved protection against improvised explosive devices (IEDs).

In April 2007, the U.S. Navy awarded Harris a contract to manufacture and deliver the PRC-117F(C), PRC-150, VRC-103, VRC-104(V)2 (20 W) VRC-104(V)3 (150 W), and VRC-104(V)4 (400 W), and related parts.

In September 2007, Harris demonstrated its PRC-117G(C) radio during a U.S. Army exercise that focused on integrating new networking technologies into the Patriot missile communications system. The Army exercise is part of a program designed to prepare the Patriot missile to be part of the next-generation Integrated Air & Missile Defense (a system of systems).

In October 2007, Harris announced that the U.S. Army had awarded it a $42 million contract for the PRC-117F(C) and the VRC-103. This contract includes radio system accessories, installation, training, and support.

In January 2008, Harris announced that the National Security Agency (NSA) had certified the Harris PRC-117G(C) as safe to send and receive voice and data traffic up through the Top Secret level (known as NSA Type 1 certification). At the same time, Harris announced that it would soon make first deliveries of its PRC-117G(C) radio.

In March 2008, Harris reported that the company had received a $40-plus-million order from the U.S. Air Force to supply its VRC-103 and VRC-104 vehicular radio systems for use in Mine Resistant Ambush Protected (MRAP) vehicles.

PRC-117

In June 2008, Harris announced that the U.S. Marine Corps had awarded the company $118 million in PRC-117F(C) radio orders. The Marine Corps is acquiring the radios under a $350 million indefinite-delivery/indefinite-quantity contract. This contract is part of the Marine Corps' Strategic Radio Plan, which will transition the corps from legacy single-band radios to multiband, multimission, software-defined radios. As part of the contract, Harris will also provide three dedicated technical service personnel who will be embedded with Marine maintenance companies.

PRC-117G(C) Conducts Demonstrations; Receives Additional Certification

In August 2008, Harris Corporation demonstrated the ability of its PRC-117G(C) radio to operate the JTRS-developed Soldier Radio Waveform (SRW) for wideband tactical networking at the LandWarNet conference. During the demonstration, PRC-117G(C) radios transmitted voice, streaming video and situational awareness data over a network using the SRW waveform.

Also in August, Harris revealed that its PRC-117G(C) radio had become the first wideband networking radio to be certified as compliant with JTRS software communications architecture (SCA). This certification, from the Joint Program Executive Office (JPEO) for the JTRS program, ensures that the radio is fully compliant with version 2.2 of the JTRS SCA. It also ensures that the PRC-117G(C) is easily upgradeable to JTRS wideband and narrowband waveforms.

In October 2008, Harris announced that its PRC-117G(C) radio had been certified to send and receive data over U.S. tactical military satellites. Specifically, the PRC-117G(C) was certified as compliant with Demand Assigned Multiple Access (DAMA) military standards by the U.S. Defense Information Systems Agency (DISA) Joint Interoperability Test Command (JITC) in Fort Huachuca, Arizona. DAMA technology is used by the military for UHF satellite communications to make more efficient use of limited radio frequency spectrum.

Also in October, Harris demonstrated a four-channel multiband vehicular radio system equipped with the PRC-117G(C) at the Association of the U.S. Army Annual Meeting and Exposition. The demonstration exhibited the use of four integrated PRC-117G(C) radios in a vehicular adapter. Each of the four PRC-117G(C) channels simultaneously operates a different communications waveform. As part of the demonstration, voice and data wideband interoperability was demonstrated between the vehicular system and the Harris RF-300S Secure Personal Radio.

Harris Receives More PRC-117G(C) Orders

In February 2009, the U.S. Navy awarded Harris a contract to supply the Navy a maximum of 250 PRC-117G radios. Also in February, Harris received an $18 million order for its PRC-117G radio from the U.S. Air Force (see **Contracts/Orders & Options**).

On April 3, 2009, the U.S. Army awarded Harris a $149,732,819 contract for PRC-117 radio systems, associated spare parts, and support services (see **Contracts/Orders & Options**). Forecast International speculates that the U.S. Army purchased the PRC-117G radio under this contract.

In late April 2009, Harris announced it had received a contract from the Polish Ministry of National Defense to provide Poland with Harris PRC-152(C), PRC-117F(C), and PRC-150(C) radios. The radios will be used by Poland's Land and Special Operations Command Forces. According to Brig. Gen. Slawomir Szczepaniak, director of the Poland Armed Forces Procurement Department, "This is the first large contract signed by Armed Forces Procurement Department, based on an FMS program using Polish national funds."

Harris Demonstrates PRC-117G Technology

In October 2009, Harris announced that it had demonstrated the exchange of high-bandwidth voice, video, and text over a Harris PRC-117G radio network using wideband waveforms developed by the JTRS program. The demonstration took place at the annual Association of the U.S. Army Meeting and Exposition held on October 5-7 in Washington, D.C.

Also in October 2009, Harris announced that the company had added a broadband satellite data capability to its PRC-117G radio via the ability to integrate the PRC-117G radio with the Harris RF-7800B family of Broadband Global Area Network (BGAN) satellite terminals.

More PRC-117 Sales

On October 16, 2009, Harris announced that the U.S Army had awarded Harris a $419 million Basic Purchasing Agreement contract to supply the U.S. Army with PRC-117G multiband tactical manpack radios and vehicular power-amplifier adapter systems (see **Contracts/Orders & Options**). In March 2010, Harris announced that it had received a $73 million order from the U.S. Marine Corps for PRC-117G multiband manpack radios, accessory kits, remote controls, and satellite communication antennas (see **Contracts/ Orders & Options**).

In April 2010, Harris announced that it had received an order for Harris tactical radio systems from the Australian Department of Defense. The Australian DoD order consists primarily of Harris PRC-152(C) hand-held radios, but also includes Harris PRC-117G, PRC-117F, and PRC-150(C) manpack radios.

Funding

The PRC-117 is entirely funded by Harris Corp.

Contracts/Orders & Options

Contractor	Award ($ millions)	Date/Description
Harris	67.0	Oct 2005 – Contract from U.S. Marine Corps to manufacture and deliver the PRC-117F(C) radio. The first delivery orders were awarded as part of a multiyear $205 million blanket purchase agreement.
Harris	7.7	Dec 2005 – The Canadian Army ordered 100 PRC-117F(C) radios, together with 100 on-the-move satellite antennas, from Trivec-Avant, for CAD9 million ($7.7 million). Deliveries occurred in Feb 2006.
Harris	4.8	Nov 2005 – Contract from U.S. Central Command Air Force to manufacture and deliver the PRC-117F(C) radio.
Harris	140.0	Mar 2006 – Two contracts from USMC to manufacture and deliver PRC-150(C) and PRC-117F(C) radios.
Harris	2.5	Aug 2006 – Contract from German Ministry of Defense to supply PRC-117F(C) radios and accessories.
Harris	69.0	Aug 2006 – A delivery order from a contract previously awarded in Oct 2005 to supply the PRC-117F(C) to the USMC.
Harris	9.9	Sep 2006 – General Services Administration delivery order under previously awarded contract (M67854-06-A-7033) for spares specific to the MBMMR. Work was scheduled to be completed in Sep 2007. The Marine Corps Systems Command, Quantico, VA, was the contracting agency.
Harris	46.0	Oct 2006 – Contract from the U.S. Army for PRC-117F(C) radios.
Harris	16.0	Feb 2007 – Contract from the U.S. Navy to provide the VRC-110, VRC-103, and VRC-104 vehicular radio systems.
Harris	8.8	Apr 2007 – IDIQ, FFP contract from the USN to manufacture and deliver the PRC-117F(C), PRC-150, VRC-103, VRC-104(V)2, VRC-104(V)3, and VRC-104(V)4 vehicular radio systems and ancillary parts. Contract includes options that would bring the total value to $35,880,972. Work was scheduled to be completed by Sep 2007. The Space and Naval Warfare Systems Command, San Diego, CA, was the contracting agency. (N00039-07-D-0001)
Harris	42.0	Oct 2007 – Contract from the Army to provide the PRC-117F(C) radio, along with VRC-103, accessories, installation, training, and support.
Harris	Unknown	Jan 2008 – Announcement of immediate first deliveries of PRC-117G(C) radio.
Harris	45.2	Mar 2008 – Order USAF to supply its VRC-103 and VRC-104 vehicular radio systems for use in MRAP vehicles.

PRC-117

Contractor	Award ($ millions)	Date/Description
Harris	350.00	June 2008 – Orders valued at $118 million from the USMC to supply PRC-117(F) radios. The Marines are acquiring the radios under a new $350 million IDIQ contract.
Harris	9.42	Feb 2009 – IDIQ, FFP contract from USN for up to 250 PRC-117G radios, up to 250 dismount kits, and up to 250 extended warranties (seven years) if maximum quantities are ordered. Contract work is expected to be completed by Feb 2011. The U.S. Naval Surface Warfare Center, Crane, IN, is the contracting agency. (N00164-09-D-JS08)
Harris	18.00	Feb 2009 – Order valued at $18 million from the U.S. Air Force Special Operations Command's Battlefield Air Operations office to provide the PRC-117G radio.
Harris	149.73	Apr 2009 – Contract from the U.S. Army for PRC-117 radio systems, associated spare parts, and support services. Contract work is expected to be completed by Apr 3, 2013. CECOM Acquisition Center, Fort Monmouth, NJ, is the contracting agency. (W15P7T-09-K-K002)
Harris	20.00	Apr 2009 – Contract from the Polish Ministry of National Defense to deliver PRC-152(C), PRC-117F(C), and PRC-150(C) radios for Poland's Land and Special Operations Command Forces.
Harris	419.00	Oct 2009 – Basic Purchasing Agreement contract valued at $419 million to supply the U.S. Army with PRC-117G manpack radios and vehicular power-amplifier adapter systems. The initial delivery order under the contract is valued at $165 million for manpack and vehicular radio systems and support services.
Harris	73.00	Mar 2010 – Order valued at $73 million from USMC for PRC-117G multiband manpack radios, accessory kits, remote controls, and satellite communication antennas.
Harris	112.00	April 2010 – Order valued at $112 million (AUD$135 million) for tactical radio systems that will provide battlefield networking capabilities to the Australian Department of Defense. The order consists primarily of Harris PRC-152(C) hand-held radios, but also includes Harris PRC-117G wideband, PRC-117F multiband, and PRC-150(C) high-frequency manpack radios.

Timetable

Month	Year	Major Development
	1999	PRC-117F(C) radio introduced
Feb	2000	NSA certifies information security features of PRC-117F(C) radio to pass voice and data traffic up through the Top Secret level
Feb	2000	U.K. MoD issues contract for first purchase of PRC-117F(C) radios outside the U.S.
May	2000	U.S. DoD selects PRC-117F(C) to validate the SCA of the JTRS
Apr	2001	U.S. Air Force awards Harris contract to equip Tactical Air Control Party squadrons with PRC-117F(C) radios
Jun	2002	Harris announces availability of an embedded, fully secure, satellite communications IP capability
Feb/Apr	2003	PRC-117F(C) radios delivered to the U.K. MoD
Jun	2004	French MoD awards multiple contracts
Oct	2005	U.S. Marine Corps awards contract
Mar	2006	U.S. Marine Corps orders PRC-150(C) and PRC-117F(C) radios
Aug	2006	German MoD contract to manufacture and deliver the PRC-117F(C) radio
Aug	2006	U.S. Marine Corps awards $69 million delivery order under a previously awarded contract for PRC-117F(C) radio

Month	Year	Major Development
Sep	2006	Harris receives a delivery order under previously awarded contract (M67854-06-A-7033) for spares specific to the U.S. Marine Corps MBMMR
Oct	2006	Harris introduces PRC-117G(C) radio to marketplace
Sep	2007	Harris demonstrates PRC-117G(C) radio during U.S. Army exercise
Oct	2007	U.S. Army awards contract to supply PRC-117F(C) radio, along with VRC-103 vehicular radio systems (which include the PRC-117F(C))
Jan	2008	PRC-117G(C) receives NSA Type 1 certification
Jun	2008	Harris announces $118 million award from U.S. Marine Corps for PRC-117F(C) radios
Aug	2008	Harris announces its PRC-117G(C) radio is fully compliant with version 2.2 of the JTRS SCA
Oct	2008	U.S. DISA certifies the PRC-117G(C) radio as compliant with DAMA military standards for sending and receiving voice and data over U.S. tactical military satellites
Feb	2009	Harris receives an $18 million order from U.S. Air Force for its PRC-117G radio
Apr	2009	Harris receives a $149,732,819 contract from U.S. Army for PRC-117 radio systems, associated spare parts, and support services
Oct	2009	Harris demonstrates exchange of high-bandwidth voice, video, and text over a Harris PRC-117G radio network using wideband waveforms developed by JTRS program (demonstration took place at annual Association of U.S. Army Meeting and Exposition Oct. 5-7 in Washington, D.C.)
Oct	2009	Harris announces $419 million Basic Purchasing Agreement contract to supply the U.S. Army with PRC-117G multiband tactical manpack radios and vehicular power-amplifier adapter systems
March	2010	Harris announces $73 million order from U.S. Marine Corps for PRC-117G multiband manpack radios, accessory kits, remote controls, and satellite communication antennas

Worldwide Distribution/Inventories

The PRC-117F(C) radio has reportedly been sold to the **U.S. Army**, **Navy**, **Air Force**, and **Marines Corps**; **U.K. Ministry of Defence**; **New Zealand Ministry of Defense (Army & Air Force)**; **French Ministry of Defense**; the **Netherlands Ministry of Defense**; **German Ministry of Defense**, **Canadian Army**, **Australian Department of Defense**, and **Polish Ministry of National Defense**.

The PRC-117G(C) radio has reportedly been sold to the **U.S. Army**, **Navy**, **Marines Corps**, and **Air Force**, **Australian Department of Defense**.

Forecast Rationale

The PRC-117 is a manpack, vehicular, and base station military radio manufactured by Harris Corporation. The PRC-117 is software-operated.

As indicated by the **Ten-Year Outlook** chart, Forecast International projects that Harris Corporation will sell 27,990 PRC-117F(C) and PRC-117G(C) radios over the forecast period to fulfill the communications needs of the U.S. Marine Corps, Air Force, Army, Navy, and Australian Department of Defense.

Harris Corporation is marketing its PRC-117G(C) radio as a "new-generation" military radio. The PRC-117G(C) is 30 percent smaller and 35 percent lighter than currently fielded radios of its type. Moreover, the PRC-117G(C) possesses over 10 times the processing power of currently fielded NSA Type 1 security certified manpack radios.

With the uncertain future of the Joint Tactical Radio System program, Forecast International expects procurement of the PRC 117F(C) and PRC-117G(C) radios to remain robust over the next several years. Sales of the PRC-117G(C) are expected to lead the charge, as that radio's state-of-the art technology will allow its communications software to be upgraded into the future.

FI expects that ITT Corporation's PRC-119 radio (SINCGARS) to compete for sales with Harris' PRC-117F(C) and PRC-117G(C) radios in the coming years.

Ten-Year Outlook

PRC-117

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)												
PRC-117 F Classified (C) Military <> Australia <> Department of Defense												
	0	350	0	0	0	0	0	0	0	0	0	350
PRC-117 F Classified (C) Military <> United States <> Marine Corps												
	16,312	5756	2255	0	0	0	0	0	0	0	0	8,011
PRC-117 F Classified (C) Military <> Worldwide <> Department of Defense												
	0	250	250	250	250	250	175	175	175	175	175	2,125
PRC-117 G Classified (C) Military <> Australia <> Department of Defense												
	0	350	0	0	0	0	0	0	0	0	0	350
PRC-117 G Classified (C) Military <> United States <> Air Force												
	240	340	140	0	0	0	0	0	0	0	0	480
PRC-117 G Classified (C) Military <> United States <> Army												
	999	3377	3377	3377	2379	0	0	0	0	0	0	12,510
PRC-117 G Classified (C) Military <> United States <> Marine Corps												
	0	1497	0	0	0	0	0	0	0	0	0	1,497
PRC-117 G Classified (C) Military <> United States <> Navy												
	83	84	83	0	0	0	0	0	0	0	0	167
PRC-117 G Classified (C) Military <> Worldwide <> Department of Defense												
	0	300	300	300	300	300	200	200	200	200	200	2,500
Subtotal	17,634	12304	6405	3927	2929	550	375	375	375	375	375	27,990
Total	17,634	12304	6405	3927	2929	550	375	375	375	375	375	27,990

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Binder	$1,440	$2,720
DVD	$50	$95
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Binder	$360	$680
DVD	$50	$95
Market Intelligence Group Libraries		
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Binder	$360	$680
DVD	$50	$95
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Binder	$360	$680
DVD	$50	$95

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DVD	$50	$95
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