

# ARCHIVED REPORT

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## Falcon II Tactical Radio - Archived 10/07

### Outlook

- With the high costs and delays of the U.S. Department of Defense's next-generation radio, the Joint Tactical Radio System, Forecast International expects demand for the Falcon family of radios to be strong in the coming years
- Forecast International will archive this report next year in October 2007 and replace it with reports on the individual radios that make up the Falcon family of radios
- Forecast International currently has reports on the following Harris Corporation Falcon radios: PRC-150(C), PRC-152(C), and PRC-117F(C)

### Orientation

**Description.** Falcon II is a family of handheld, manpack, and vehicular military radios manufactured by Harris Corporation. Falcon II radios run by software.

#### Sponsor

Harris Corporation  
1025 West Nasa Boulevard  
Melbourne, Florida 32919-0001  
Tel: + 1 (321) 727-9100  
Fax: + 1 (321) 727-9646  
Web site: <http://www.harris.com>

**Status.** Ongoing development and production.

**Application.** Communications

**Price Range.** Forecast International estimates a single Falcon II Tactical Radio to cost \$20,000. Forecast International obtained this price from a U.S. Marine Corps FY06/07 procurement budget document.

### Contractors

#### Prime

<b>Harris Corp</b>	<a href="http://www.harris.com">http://www.harris.com</a> , 1025 W Nasa Blvd, Melbourne, FL 32919-0001 United States, Tel: + 1 (321) 727-9100, Fax: + 1 (321) 727-9646, Email: <a href="mailto:webmaster@harris.com">webmaster@harris.com</a> , Prime
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Comprehensive information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to [www.forecastinternational.com](http://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](mailto:rich.pettibone@forecast1.com)

## Technical Data

Falcon II is a family of high-frequency, very high-frequency, and multiband tactical radios. Falcon II radios run by software.

The software-based design of Falcon II radios extends the life of the radios over time, allowing new

capabilities to be added well into the future. With embedded Type 1 encryption, extended frequency range, and advanced data capabilities, Falcon II radios support a wide variety of military tactical operations.

## Variants/Upgrades

Each member of the Falcon II family shares a common operation, appearance, and accessories. Additionally, Harris Corp engineered the Falcon II radios to interoperate with a variety of other radios.

Below are the members of the Falcon II family.

**RF-5800H.** The RF-5800H's extended frequency range (up to 60 MHz) provides VHF capability in addition to HF capability.

**RF-5800H-MP.** The RF-5800H-MP is the manpack version of the RF-5800H.

**RF-5800V.** The RF-5800V, with rates up to 64 kbps, reduces on-the-air time and enables high-data-rate applications such as high-resolution image transmissions. The Quicklook 1A and Quicklook 2 waveforms provide electronic counter-countermeasures (ECCM) hop rates in excess of 300 hops per second.

**RF-5800V-MP.** The RF-5800V-MP is the manpack version of the RF-5800V.

**RF-5800V-HH.** The RF-5800V-HH is the handheld companion to (or version of) the RF-5800V.

**RF-5800U.** The RF-5800U operates across the 90- to 420-MHz band. The RF-5800U provides military and civilian ground-to-air communications.

**RF-5800U-VAU.** The RF-5800U-VAU is the vehicle version of the RF-5800U.

**RF-5800U-MP.** The RF-5800U-MP is the manpack version of the RF-5800U.

**RF-5800U-HH.** The RF-5800U-HH is the handheld companion to (or version of) the RF-5800U.

**RF-5800M.** The RF-5800M multiband radio is ideal for missions requiring ground-to-ground and ground-to-air communications in the VHF and UHF frequency bands. Continuous on-the-air coverage from 30 MHz to 512 MHz allows full use of the frequency spectrum.

**RF-5800M-VAU.** The RF-5800M-VAU is the vehicle version of the RF-5800M.

**RF-5800M-MP.** The RF-5800M-MP is the manpack version of the RF-5800M.

**RF-5800M-HH.** The RF-5800M-HH is the handheld companion to (or version of) the RF-5800M.

**PRC-117F(C).** The PRC-117F(C) is a multiband manpack radio that provides the secure voice and data needs for ground-ground, ground-air, and ground-satellite communications.

**PRC-117F(C)-HQ.** The PRC-117F(C)-HQ is a ground-to-air radio. The PRC-117F(C)-HQ covers the entire 30- to 512-MHz frequency range while offering Havequick I/II electronic counter-countermeasures (ECCM) capabilities.

**PRC-150(C).** The PRC-150(C) is a high-frequency (HF) manpack radio. The PRC-150(C) provides secure voice and data transmission using U.S. National Security Agency-certified Type 1 encryption.

**PRC-152(C).** The PRC-152(C) is a single channel, multiband handheld radio.

## Program Review

### *Harris Introduces New Falcon II Family Members*

At the EUROSATORY Military Trade Show in June 2000, Harris introduced a new UHF radio, the RF-5800U-MP. Harris also debuted a handheld, multiband version of its RF-5800M-MP, designated RF-5800M-HH.

In March 2001, Harris introduced a new addition to the Falcon II Tactical Radio family, its RF-5800V-HH

VHF, software-based handheld radio. The radio is used for tactical communications and is a companion to the RF-5800V-MP VHF manpack radio.

## Falcon II Tactical Radio

***Falcon II Gains Popularity with International Buyers***

In July 2001, Harris, as part of the CDC Systems U.K. Limited team, was selected as the preferred HF subsystem supplier for the United Kingdom's Bowman Tactical Radio program. Harris' Bowman solution is based on the company's highly successful Falcon II Tactical Radio product family.

***9/11 Attacks Spur Falcon II Buys***

The September 11, 2001, terrorist attacks on the United States had a profound effect on sales of the Falcon II Tactical Radio. In October 2001, Harris landed a contract from the Polish Ministry of Defense to provide its Falcon II radios to the Polish Army. In November 2001, the U.S. Army awarded Harris a contract to supply 81 Falcon II PRC-150(C) radios to the Initial Brigade Combat Team. In March 2002, Harris was awarded a \$13.2 million contract by the Lithuanian Ministry of Defense to supply HF and VHF Falcon II tactical radios.

In September 2002, Harris announced that it delivered Falcon II PRC-117F multiband radios to the U.K. Ministry of Defence as part of an Urgent Operational Requirement. The U.K. military are using the radios in the war on terrorism. In November 2002, Harris announced that it shipped the first low-rate initial production HF radio systems to General Dynamics for integration into the U.K.'s Bowman Tactical Radio Program.

In April 2003, the Chilean Joint Forces awarded Harris a contract to supply its Falcon II radios to the Chilean Army, Navy, and Air Force. Under the terms of the

contract, Harris will provide the Chilean Joint Forces with its RF-5800V-MP, RF-5800V-HH, and RF-5800H-MP radios, all part of the Falcon II Tactical Radio family. The Chilean armed forces will use the Falcon II radios primarily for peacekeeping missions.

In May 2003, the Uzbekistan Ministry of Defense awarded Harris a contract to provide Falcon II radios. Under the terms of the contract, the Falcon II procurement included the Harris RF-5800H and the RF-5800V manpack (MP) and handheld (HH) radios.

In June 2003, Harris shipped the first of its high-performance, HF radio systems for the U.K. Bowman Tactical Radio Program. Harris manufactured the radios at its facility in Basingstoke, U.K., and delivered them to General Dynamics for integration into the Bowman Program. Forecast International expects the shipments to continue on a monthly basis through January 2007.

In September 2003, Harris announced it received two contracts to produce and deliver its Falcon II radio: one from the Turkish Ministry of Defense and one from the Slovenian Ministry of Defense. In February 2004, Harris introduced the Falcon II RF-5800U-HH radio. The RF-5800U-HH is an ultra-high frequency (UHF) handheld radio companion to Harris's Falcon II manpack, vehicle, and base station tactical radio systems.

From January 2005 through July 2005, Harris received \$235 million worth of contracts to produce its Falcon II Tactical Radio. Under these contracts, Harris will supply and deliver versions of its Falcon II Tactical Radio to U.S., Pakistan, and Danish militaries.

## Significant News

***Harris Lands Falcon II Contract*** – In the summer of 2006, Harris Corporation announced that the U.S. Army Communications-Electronics Command awarded Harris a \$169 million contract for the production of Falcon VRC-110 vehicle radio systems. The VRC-110 system includes the Harris PRC-152(C) handheld military radio. (Harris, 7/06)

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## Funding

The Falcon II family of radios is entirely funded by Harris Corporation.

## Falcon II Tactical Radio

## Contracts / Orders &amp; Options

<b><u>Contractor</u></b>	<b><u>Award (\$ millions)</u></b>	<b><u>Date/Description</u></b>
Harris	6.0	Jun 2004 – Contract for Falcon II radios from the Royal Norwegian Ministry of Defence. Harris will provide its Falcon II (HF) radios in manpack and base station configurations.
Harris	30.0	Nov 2004 – The U.S. Army contracts to supply and deliver the manpack and vehicular versions of the Falcon II PRC-117F(C). The radios will support units deployed in support of Operations Iraqi and Enduring Freedom and are part of the U.S. Army's modularity redesign.
Harris	30.0	Jan 2005 – U.S. Army contracts to supply and deliver the manpack and vehicular versions of the Falcon II PRC-150(C). Harris completed delivery in June 2005. The radios were deployed to support Operations Iraqi and Enduring Freedom and are part of the U.S. Army's modularity redesign.
Harris	68.0	Feb 2005 – Government of Pakistan contract to supply the Pakistan military with Falcon II tactical multiband radios. Under the terms of the contract, Harris will supply its Falcon II RF-5800H in the following quantities and configurations: 1,635 HF manpack radios, 1,635 HF vehicular radio systems, 50 high-power vehicular radio systems, six high-power base station systems, and two Radio Frequency Remote Control Systems.
Harris	12.0	Feb 2005 – Danish Ministry of Defence contracts for Falcon II Tactical Radios.
Harris	75.0	Mar 2005 – U.S. Marines Corps contract for the Falcon II PRC-150(C) radio.
Harris	50.0	Jul 2005 – The U.S. Army contract to supply the manpack and vehicular versions of the Falcon II PRC-150(C).
Harris	169.0	Jul 2006 – U.S. Army Communications-Electronics Command contract for Falcon VRC-110 vehicle radio systems.

## Timetable

<b><u>Month</u></b>	<b><u>Year</u></b>	<b><u>Major Development</u></b>
	1995	Development of the Falcon II Tactical Radio begins
Jun	1997	Falcon II VHF Tactical Radio makes its U.S. debut
Mar	1998	RF-5800H makes it debut
May	1999	Bulgaria MoD orders HF and VHF Falcon II Tactical Radios
Jun	2000	Denmark orders RF-5800HF radios
Jul	2001	Harris selected as the HF subsystem supplier for the U.K.'s Bowman Tactical Radio program; Bowman solution is based on Harris' Falcon II Tactical Radio
Apr	2003	The Chilean Joint Forces awards Harris a contract to supply its Falcon II Tactical Radios to the Chilean Army, Navy, and Air Force
Feb	2004	Harris introduces its Falcon II RF-5800U-HH radio
Jan – Jul	2005	Harris receives \$235 million worth of contracts to supply its Falcon II Tactical Radio
	2007	Expect Falcon II shipments for the U.K. Bowman Tactical Radio Program to end

## Falcon II Tactical Radio

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Worldwide Distribution / Inventories

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The following countries and organizations have purchased Falcon II radios: **New Zealand, Bulgaria, Denmark, Hungary, Lithuania, the NATO Consultation Command and Control Agency, the Netherlands, Poland, Singapore, Chile, France, Norway, Slovenia, Turkey, Uzbekistan, United Arab Emirates, the United Kingdom, Pakistan, and the United States.**

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Forecast Rationale

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***Demand Expected to be Strong in the  
Coming Decade***

Harris Corporation manufactures the Falcon II family of tactical radios. All Falcon II radios operate via software. Forecast International will archive this report next year (October 2007) and replace it with reports on the individual radios that make up the Falcon family of radios.

With the high costs and delays of the U.S. Department of Defense's next-generation radio, the Joint Tactical Radio System, Forecast International expects demand for the Falcon family of radios, including the PRC-150(C), PRC-152(C), and PRC-117F(C) radio systems (see Forecast International reports entitled *PRC-150(C)*, *PRC-152(C)*, and *PRC-117F(C)*) to be strong in the coming years.

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Ten-Year Outlook

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With the archiving of this report in October 2007, Forecast International has omitted the ten-year outlook chart. For forecasts on individual Falcon II radios, see reports entitled *PRC-150(C)*, *PRC-152(C)*, and *PRC-117F(C)*.

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