

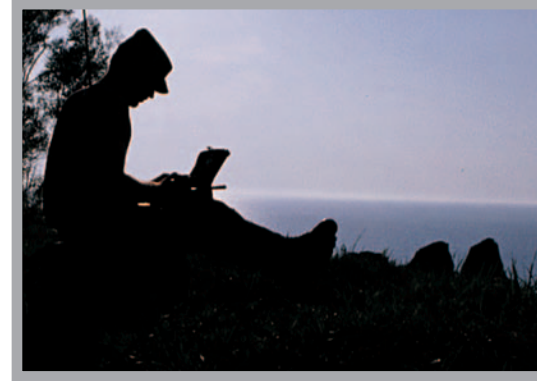


assuredcommunications™

## Wireless Email

RF-6760W





# Cutting-Edge Performance. Unmatched Capability.



Harris email software runs on a wide variety of COTS PCs.



## **Data communications**

Harris takes data communications seriously. With a long list of industry firsts in HF, VHF, and UHF data communications, Harris has consistently provided the highest performance tactical radio systems.

## **Wireless email**

Harris is committed to providing the highest performance messaging systems in the industry. With over ten years of experience, Harris Wireless email products provide efficient email messaging over stressed tactical and commercial radio channels. These software-based products can send and receive email, files, and images over HF, VHF, UHF, INMARSAT, microwave, and telephone.

Harris now offers the RF-6760W Wireless Messaging Terminal (WMT). The WMT connects tactical radio links to a Local Area Network (LAN) or Wide Area Network (WAN), including the Internet, and as a "field end" communications link to the network through the radio. Messages are automatically delivered from originator to destination, as if the network was completely hardwired.

The RF-6760W WMT works on standard PCs running Microsoft® Windows® operating systems, and consist of an installation disk, a manual, and if necessary, a PCI or PCMCIA synchronous communications card.

## Networking

The WMT product moves email messages seamlessly over different media. Whether the data is text, file attachments, or images, the information is automatically routed to the destination through the appropriate communication channel. The message may be transported over HF, VHF, UHF, landline, INMARSAT, or other media.

In a stressed communications environment, a system can't always rely on specific nodes to be available or operational. The WMT product meets this challenge by automatically relaying messages over predefined alternate paths. If the secondary path is not viable, a third route is selected.

## Security

The RF-6760 WMT email product is designed for military and government communication. It accommodates a wide variety of government cryptographic devices ranging from embedded crypto to external, legacy crypto. Additionally, WMT can utilize COTS software-based data privacy that "plugs into" Microsoft Outlook or other mail clients.

## User Interface that works

The user interface is any email client that supports the SMTP and POP3 email standards. Additional tools are provided for administration of the network, including a network data base manager. When using Harris HF, VHF, or multiband radios, the WMT integrates with the RF-6550H, RF-6550V, and RF-6550F Radio Programming Applications (RPA). The RPA is a radio management planning system that allows a system administrator to set up a complete network, including radio frequencies, addressing, keys, and RF-6760W addressing.

## System Performance

For more than 20 years, Harris engineers have led the world in maximizing data throughput over narrowband radio channels, particularly HF. The wireless tactical environment is often bandwidth-limited. The highest system throughput is achieved by providing highly efficient mechanisms at all levels of the communication system.

In addition to superior modem technology, the WMT email product employs a suite of data-link protocols designed and perfected for stressed tactical channels. Whether it's STANAG 4538, STANAG 5066, or the High Performance Waveform (HPW), the Harris implementation provides fully adaptive data links that dynamically change the modem data rate to get the greatest possible throughput.

Additionally, the RF-6760W employs a sophisticated message management function. Several capabilities provide significant improvements in throughput:

- Channel access
- Message compression
- Message conglomeration
- Automatic recall to busy stations
- Timed transmission
- Priority management
- Resume messaging

## **Harris Imager**

Harris was a pioneer in the late 1980s in the development of formats and protocols to send high-resolution images over tactical radio channels. The most recent tactical software package is Harris Imager, which includes many of the capabilities of the industry standard Harris Universal Image Transmission Software (HUITs). Dozens of military and government organizations are using this software package to move their imagery from the field to analysis stations. This capability is included with the WMT. Harris Imager allows the operator to manipulate images, compress them with a powerful wavelet compression engine, and send them as an email attachment, all with a few clicks of the mouse.

## **HF Interoperability**

Harris messaging solutions are focused on standards and interoperability. Both second- and third-generation HF standards are supported with the RF-6760W.

STANAG 5066 is the NATO second-generation interoperability standard for email and network services over HF radio. Use of this standard allows for interoperability with the HF Global Communication System (HFGCS), which manages the U.S. Air Force SCOPE Command program. The RF-6760W features fully adaptive data rates from 75 bps to 9600 bps using STANAG 4539 and MIL-STD-188-110B modems. MIL-STD-188-141B Automatic Link Establishment (ALE) is automatically controlled with Harris radios. The RF-6760W carries the Joint Interoperability Test Command (JTIC) certification, which assures the compliance with standardized protocols. The result is an interoperable, fully automated, auto-adapting system with performance second to none.

Other capabilities include the ability to achieve fixed, non-adaptive data rates as high as 19,200 bps with the radio set to ISB mode and the HF modem set to a fixed data rate.

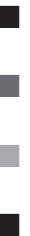
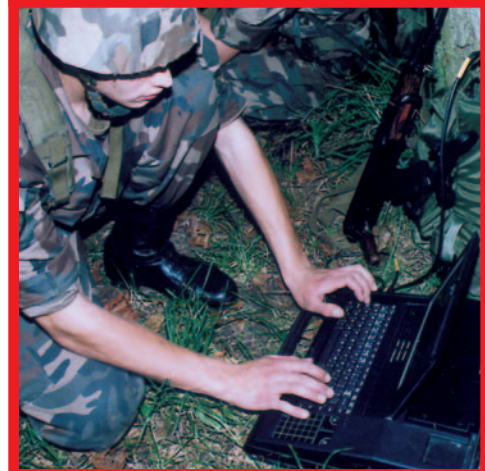
The WMT product also includes an industry first Windows-based STANAG 5066 IP client. The revolutionary IP client enables transfer of IP data using non-IP-equipped radios.

STANAG 4538 is the latest generation of ALE data transfer. It provides superior performance over stressed tactical or commercial channels. The STANAG 4538 data link utilizes code-combining techniques and black-side ARQ to deliver error-free data over poor channels. The ALE portion of STANAG 4538 is oriented toward large networks and pro-

vides faster and more robust linking, with the ability to achieve a maximum over-the-air data rate of 9600 bps. The RF-6760W utilizes these capabilities in Harris FALCON® II and FALCON® III radios to deliver unparalleled system throughput for ground tactical users.

## **Messaging Capabilities**

The RF-6760W now offers users the ability to request email on demand. Pull messaging provides the retrieval of only those emails the user has indicated they want to view. Many email products provide a push messaging paradigm, which forces all email to the user, and requires parsing through all email to obtain only those pertinent messages. Pull Messaging offers flexibility and efficiency required in today's communication environment. WMT allows email, text, files and images crucial to the user, available and accessible on a priority basis.





**Proven design. Proven performance.**



### *System flexibility*

The WMT email product is built to accommodate a wide variety of system requirements. Relaying, multiple communication media, timed transmission, prioritization, message conglomeration, and multiple on-air protocols have been implemented to provide versatile application of the system.

### *Unparalleled performance*

Harris has been in the tactical and commercial radio messaging business since the 1980s and has continually reinvested in system improvements during that time. There are currently thousands of Harris email products in service. The current RF-6760W product is built on the lessons learned from three previous generations. The tight integration with Harris modems and radios consistently demonstrates superior message throughput versus our competitors. Revolutionary and evolutionary improvements have resulted in robustness, stability, and performance found nowhere else in the industry.

The RF-6700 series has been in production for more than a decade. During this time, Harris has continuously incorporated new software, networking, and radio technology improvements into the product line. When considering our commitment to provide the best data systems in the business, it is clear that Harris is the leader.



## RF Communications

Government

Broadcast

Microwave



## *Communications solutions for today and beyond*

*Harris RF Communications Division is a leading supplier of secure voice and data communications products, systems, and networks to military, government, and commercial organizations worldwide.*

Harris Corporation is an international communications technology company focused on providing *assured communications*<sup>™</sup> products, systems and services for government and commercial customers. The company's operating divisions serve markets for government communications, tactical radio, broadcast, and microwave systems. Harris provides systems and service to customers in more than 150 countries. Additional information about Harris Corporation is available at [www.harris.com](http://www.harris.com).

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