

# Frequently Asked Questions (FAQ) about Winlink 2000

## PART ONE OF TWO

All these new words: AirMail, Winlink, Paclink AGW, Telpac, Telnet, PMBO, etc. get me confused. Is there a “Winlink for Dummies” book?

Not yet! But there is a short “Winlink made Simple” publication available at:

<http://home.earthlink.net/~k7bfl/tfctools.html> . Also Bud Thompson, (N0IA) has written an online course “WL2K For Dummies” for those who have not yet installed the various client (end-user) programs for using the Winlink 2000 system. See: <http://www.winlink.org/CLASS.HTM>

What is a “PMBO”

This is an amateur radio station which functions as a port to the rest of the Winlink infrastructure. It is a “bridge” between radio stations and the email part of the internet.

How do you suggest that I learn about Winlink; and solve setup and operating problems that arise?

1. Use the most recent version of the Winlink software.
2. Read the Installation and Operation instructions for the software program used.
3. Read the installation and operation instructions for your radio and modem equipment.
4. Read the Help files with the software.
5. Review the information in the Winlink 2000 web page:  
<http://www.winlink.org>
6. Use an internet search engine to find relevant information on the web.
7. Ask your local Telpac Winlink Gateway operator for assistance.

Is Winlink designed to replace the email part of the internet, in case the internet fails?

No. Its original purpose was to provide a very long range radio path for radio amateurs who did not have access to “land-line” communications needed to send and receive email messages. Subsequent uses have been oriented toward providing partial backup of email services for ARES/RACES “served agencies” during a local commercial communications outage or communications overload. Transfer speeds and available bandwidth do not

allow for complete replacement of services. This may change with increased use of D-Star and Telpac Winlink Gateway satellite paths to the internet infrastructure.

*How do I register as a Winlink User?*

“Registration” is automatically done when you connect to the Winlink system via radio or via a telnet session. WEB Browser Access does NOT automatically register a new user.

*How many Winlink users are there?*

Early in January 2008 there were about 18,000 registered users....and growing!

*What happens if the Common Message Server (CMS) fails?*

The CMS consists of four different computer systems in four different locations: San Diego, Washington, Halifax, and Perth. They are backing each other up on a continuous basis. If a failure occurs at one location, PMBO’s using that location will be re-directed to one of the other locations.

*What are some of the design principles of the Winlink system and associated software?*

Principles include:

1. A message system compatible with SMTP email.
2. Enable messages to be transferred to the destination party in a VERY accurate manner, within a short time duration (several minutes).
3. Enable use of the available internet infrastructure, if available.
4. Encourage use of VHF/UHF radio spectrum, if a “non-radio” path is not available.
5. Enable EFFICIENT use of HF radio spectrum, if VHF/UHF is not available. Use a small as possible “RF Footprint”.

See <http://www.winlink.org/Presentations/RFfootprints.PDF>

6. Enable email type messages to be sent between two radio stations, without using any portion of the “internet”. This is called “peer-to-peer”.

*Does Winlink support Linux or Macintosh operating systems?*

Yes, but since Windows operating systems are used by the majority of actual and potential users, we feel our limited man-power resources should be used to improve the present Windows based software.

*How can I send a Radiogram via Winlink 2000?*

It can either be embedded in the Body of the message, or Attached to the message. AirMail can be used to send and receive NTS radiograms via the NTSD system, by accessing the NTSD “Area Hub” pactor stations. In Arkansas you can access ADEM or ADOH.

*What are some of the Limits associated with Winlink?*

Attachment size maximum: 100000 bytes, Message size (inbound for a Winlink user): 100000 bytes, Message size (outbound): 250000 bytes (uncompressed)

*Is there somewhere I can see how many messages the Winlink system has handled last month?*

Yes. From the Winlink web page go to, Winlink Station, Network Status of Public PMBOs in Real-time .....CMS Traffic

<http://www.winlink.org/status/CmsTraffic.aspx>

*Is there a document describing the Specifications of the Winlink System?*

There is a document named “New Rules of Engagement for the Winlink 2000 System”. It describes some specifications of the system.

<http://home.earthlink.net/~k7bfl/Rules1-19-2005.pdf>

*Is there any priority associated with the downloading of messages to a user?*

In general, smaller messages are downloaded before larger messages. I would suggest that if you had an EMERGENCY message that it be sent alone.

*What are the rules regarding Winlink and “Third Party Traffic”?*

Third-party traffic is any traffic transmitted over the Amateur bands that is either from or to a non-amateur. In the Western Hemisphere (with a few exceptions) there is no restriction on third-party traffic being passed over amateur radio. Many countries outside of the Western Hemisphere also now permit third-party traffic over amateur radio.

Messages between amateurs even if they originate or are delivered over Internet are not considered third-party traffic. Third-party traffic only deals with that portion which is transmitted over the radio spectrum.

Since there is no limitation on third-party traffic over Internet itself, messages passed between WL2K participating stations, or a participating station and the Internet are *not* restricted. Only when the message involves a non-amateur and is passed over a radio link is the issue a concern. For

example: if a message originates in the U.K. on Internet but is delivered to a U.S. amateur over the radio from a U.S.-based station no third-party rule is broken even though the U.K. does not allow third-party traffic over amateur channels. Likewise, a message originating over the radio from a U.S. amateur and passed to a U.S. station is legal even if it is addressed to the Internet address of a non-amateur in the U.K.

Users must make themselves familiar with these third-party rules for the country in which they are operating as well as linking with if they are exchanging messages with non-amateurs.

See the country list for countries known to permit third-party traffic for U.S. stations and their reciprocals.

### *Does Winlink comply with Part 97 of the FCC Rules?*

PMBO Stations, Telpac Winlink Gateway Stations, and Winlink users are governed by the rules and regulations of their own country.

**Winlink 2000 complies with §97.221 for an Automatically controlled digital station:**

**Winlink 2000 complies with §97.109 Station control, for 3rd Party traffic rules:**

**Winlink 2000 complies with Section §97.219(c) for 3rd Party traffic Content Rules:**

**Winlink 2000 complies with §97.309 for data emission codes:**

**Winlink 2000 complies with Sub-Part E when so designated (i.e.: §97.403 Safety of life and protection of property):**

No provision of these rules prevents the use by an amateur station of any means of radio communication at its disposal to provide essential communication needs in connection with the immediate safety of human life and immediate protection of property when normal communication systems are not available.

**END PART ONE**

### Start PART TWO

*Let's assume that there is a total internet crash; none of the PMBO stations have a path to the Common Message Servers. Is Winlink of any use to me?*

Yes, Winlink still has value. Each PMBO stores messages received from users before sending them to the Common Message Servers. Therefore during an event as you described, each PMBO would act as a "Hub" for Winlink users who can access that PMBO. If N3ABC and K3KK can both access PMBO K4CJX via radio, then they can exchange emails by using their normal Winlink email addresses; but they cannot send or receive an email from someone like **mother@earthlink.net**. When a path to the CMS is restored, all stored messages will flow between the PMBO station and the CMS.

There are two “levels” of usefulness of a Hubbing PMBO station:

- 1. PMBO loss of connectivity to the Common Message Server.** Winlink users who can connect to the PMBO via HF, VHF/UHF direct, or VHF/UHF using a Winlink Telpac Gateway can exchange messages with each other.
- 2. PMBO loss of connectivity to the Internet.** Winlink users who can connect to the PMBO via HF or VHF/UHF direct can exchange messages with each other.

### *How does the Winlink system deal with Spam?*

Messages incoming to Winlink users are filtered by the Central Message Server (CMS). Individual Winlink Users have the choice of two different filter methods: “normal” or “Whitelist”. “Whitelist” is the default method for new users. Your choice may be changed at any time. I have been on inlink now for about 2 years and have never received any Spam.

### *Who pays the expenses of creating and operating the Winlink 2000 system?*

Winlink 2000 (WL2K) is (and always has been) all volunteer. No one is compensated for their contributions of time which now [2007] totals well over 20 man-years. We try to offset at least some of the costs of running servers, registering internet addresses and domains, licensing software etc with donations.

### *What Discussion groups are concerned with Winlink?*

<http://groups.yahoo.com/group/wl2kemcomm/> . Purpose of the group is to share ideas, uses, methods and procedures of utilizing Winlink 2000 for Disaster Recovery/Emergency Preparedness; and to include any other organization/agency that deploys or is considering deploying Winlink 2000 for emergency communications.

<http://groups.yahoo.com/group/airmail2000/> . A general purpose list for things like: Beginner questions on setting up, tips on using and connecting to the WinLink2000 system, frequency updates, WinLink 2000 station status and new station additions are all welcome on this list.

### *What is the future of the Winlink 2000 System? Are there any new things on the horizon?*

Yes! Several things will be happening, which will improve the system. See the paper “Winlink 2000 Roadmap”, written by two members of the WL2K Development Team: <http://home.earthlink.net/~k7bfl/WL2Rdmap.pdf>

*What kind of computer operating system do I need to run AirMail?*

Windows 95 is the “minimum” operating system, although a more modern Windows operating system is always encouraged.

*I want to install a new version of AirMail. Do I need to uninstall the old version first?*

No; just copy the new file into your main AirMail Folder. Double click on the new file. Installation will begin. All of your previous settings and frequency lists will be preserved.

*Are there any special things I need to know to get AirMail to work with the new Windows Vista operating system?*

First, a comment on upgrading to Windows Vista: If your new computer came with Windows Vista then that's great. If you are contemplating upgrading your computer to Windows Vista then make sure that is what you want to do. Windows-XP is robust and reliable; if yours is not then something has been compromised and upgrading a compromised system results in a compromised system with fancy new drapes. But if you have a fast processor and at least a gigabyte of memory, then go for it. There are a couple of issues when running Airmail under Windows Vista, mostly related to new Vista security features. The short answer is that Airmail works fine under Win-Vista when run as an administrator.

*Are there a maximum number of addressees that can appear in the AirMail “To” line?*

No; however keep in mind that most folks use some sort of spam-filter on the receiving end, and most spam-filters are sensitive to messages with a bazillion “to” or “cc” addresses- lots of cc’s is something often used by spam. So keeping the number of recipients down to a reasonable number per message will increase the chances of getting it through.

*How is it possible to view all addresses in the “To” line as I add them to it?*

Save the message, then select View menu, Message-header, and re-open the message. You will see the complete headers with word-wrap, easy to check or copy.

*How do I choose which PMBO station to use?*

Use the data from the AirMail propagation module (View...Propagation) to give you guidance on which stations and frequencies are better than others, at the time of day you want to connect. Do NOT try to connect on a frequency that is in use! Use PMBO stations which are close to you. In Arkansas this would be ADEM and ADOH. Use lower frequencies (80 and 40 meters) if possible. 30 meters is a very useable “forgotten” band.

*How do I find a working Telpac Winlink Gateway in my local area?*

There are two pages on the Winlink web site that will give you the information. The first one is a map of Telpac Winlink Gateways that have reported to the Common Message Server within the past 24 hours. It is a link off of the “Winlink Stations” page. The link is:

<http://www.winlink.org/positions/telpacpos.aspx>

*What is a “telnet” connection?*

Telnet is an Internet protocol that allows the user to connect to a remote computer. AirMail has a communications module called the “Telnet Client”, or in later versions “Internet Access”. This module enables the AirMail user to send and receive messages with a PMBO station’s computer, using an internet “non-radio” path. This results in a much faster throughput speed.

*What is “Peer-to-Peer”?*

Peer-to-Peer is a process by which two radio stations, using AirMail, connect to each other without using any of the Winlink infrastructures. The two stations can exchange messages “automatically” using the B2F forwarding protocol (Handshake) or exchange information in a conversational mode (Keyboard).

*How do I set up AirMail to do Peer-to-Peer, using the Packet Client module?*

Go to Tools.....Options.....Autoanswer. Make sure that “Accept Incoming Connects” is checked. . Just connect to the other station, as if you were connecting to a Telpac Winlink Gateway or PMBO station. If you want to exchange information conversationally, select the Keyboard mode.

*How do I send an ARRL Radiogram to a NTSD Station?*

NTSD (National Traffic System – Digital) stations are NOT the same as Winlink PMBO stations. They scan different frequencies, and do NOT “automatically” forward messages to other NTSD stations. NTSD generally does not make use of the internet...radio only. See the web pages by AE5V: [http://home.earthlink.net/~bscottmd/airmail\\_address.htm](http://home.earthlink.net/~bscottmd/airmail_address.htm)

*Is the new Icom D-Star equipment compatible with Winlink 2000?*

Yes, it can be used with the Paclink AGW software. See Rick, KN6KB for setup details.

*If I decide to install the Telpac software, do I have any obligations to the Winlink system?*

No. You can choose to operate it as many hours a day as you want. 24/7, As Needed, etc.

*What call letters should I use for my Telpac Winlink Gateway station?*

If possible, use a quasi standard of yourcall-10.

*Are there any frequencies that I should avoid for my Telpac Winlink Gateway?*

The Winlink Development Team recommends that you avoid 144.39 MHz, which is a common frequency for APRS use. If possible, coordinate your frequency choice with other local packet users.

*Is it possible to install the Telpac software on a laptop and use it to run a Telpac Winlink Gateway “portable station”.*

Yes, that is an excellent application. With the addition of a WiFi card and external antenna, these stations can be deployed to any hotspot (or, heck to any neighborhood or commercial area where connections may be found easily these days) to set up an instant gateway for other Paclink AGW or AirMail stations. Having your free hotspots pre-surveyed and several operators capable of deploying portable Telpac Winlink gateways is a very viable strategy that can bring depth and flexibility to organizations that can

afford little permanent infrastructure. Don't forget that Telpac will work with something as "simple" as a telephone dial-up connection -- or a high tech satellite internet connection.