

Frequently Asked Questions (FAQ) about Winlink 2000

(Revised February 25, 2007)

Material from the Winlink EMCOMM and AirMail2000 Yahoo User Groups, and others
Please send new and revised material to K7BFL@ARRL.NET

Q **How is this FAQ group organized?**

A 100 General Questions about Winlink

 1000 AirMail – Setup - General

 1500 AirMail – Use - General

 2000 AirMail – Setup (HF Pactor)

 2500 AirMail – Use (HF Pactor)

 3000 AirMail – Setup (VHF/UHF Packet)

 3500 AirMail – Use (VHF/UHF Packet)

 4000 AirMail – Setup (Telnet via internet connection)

 4500 AirMail – Use (Telnet via internet connection)

 5000 AirMail – Peer-to-Peer - Setup

 5500 AirMail – Peer-to-Peer - Use

 7000 Paclink AGW – Setup – General

 7500 Paclink AGW – Use (VHF/UHF Packet)

 7700 Paclink AGW – Use (Telnet via internet connection)

 8000 Keyboard Access – Setup

 8500 Keyboard Access – Use

 9000 Telpac Winlink Gateway – Setup

 9500 Telpac Winlink Gateway – Use

General Questions about Winlink

Q102 **All these new words: AirMail, Winlink, Paclink AGW, Telpac, Telnet, PMBO, etc. get me confused. Is there a “Winlink for Dummies” book?**

A102 Not yet! But there is a short “Winlink made Simple” publication available at:

<http://home.earthlink.net/~k7bfl/tfctools.html>

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>

This Group is specifically designed for those who have not yet installed the various client (end-user) programs for using the Winlink 2000 system. There is no TNC, data terminal, or radio required for this on-line course. When there is sufficient interest, this group may expand to details of wiring computer-TNC-radio for using the Winlink 2000 client software components over the air.

The first thing to do is go to the "FILES" section of this group, and look for E-Mail Assignments. Start working on the assignments at your own pace, and use the facilities of this Yahoo Reflector group to obtain assistance.

Q104 **What is a “PMBO”**

A104 This is a amateur radio station which functions as a port to the rest of the Winlink infrastructure.

Q106 **How do you suggest that I learn about Winlink; and solve setup and operating problems that arise?**

- A106
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. Read the remainder of this list of FAQ's.
 7. Search the messages in the Winlink user discussion groups. See Q240.
 8. Use an internet search engine to find relevant information on the web.
 9. Ask your local Telpac Winlink Gateway operator for assistance.
 10. Ask a PMBO operator for assistance. View the Airmail “Frequency List’ (text version] for contact information.

11. Ask a member of the Winlink Development Team for assistance.

12. Contact the Winlink System Administrator:
Steve Waterman, k4cix@comcast.net
Home: 615-665-0952, Cell: 615-300-5296

Q110 Is Winlink designed to replace the email part of the internet, in case the internet fails?

A110 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 Gateway satellite paths to the internet infrastructure.

Q120 How do I register as a Winlink User?

A120 "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. Your User information will remain in the database for 400 days after your last Connect to a PMBO station. User radio privileges are not checked by Winlink system staff. Use of the WEB Browser Access does not "update" the 400 day limit; this must be done by using a PMBO station.

Q125 How many Winlink users are there?

A125 Early in May 2006 there were about 10,000 registered users....and growing!

Q130 What is a Route? How is it used?

A130 Winlink uses dynamic routing. A Routing Table is maintained for each User, by the Common Message Servers (CMS). It contains a list of all of the PMBO stations that you have assessed in the past 90 days. A copy of all e-mail for YourCall@winlink.org is sent to each of the PMBO's in your Routing Table, shortly after the message arrives at the CMS. After you successfully download a particular message, that message is deleted at each PMBO. The deletion process may take several hours.

Q135 How long does a Route for me remain with a PMBO?

A135 90 days after you last used that PMBO.

Q140 I just connected to Winlink, expecting an important message. Winlink says I have no mail.....why?

A140 It may be because you have not used that PMBO in the past 90 days. If this is the case, just connect again in a few minutes. The message should be there waiting for you.

If you are using AirMail (HF) or Telnet (Internet Access), you should also note on the connection Log how many minutes have elapsed since the PMBO has connected to one of the Common Message Servers. If that duration is greater than 15 minutes, the PMBO may be having a problem communicating with the CMS; Use another PMBO.

Q143 Are there any guarantees that the message I send via Winlink will get through to the intended person?

A143 No guarantees, but if one of your intended recipients is NOT a Winlink user, you will get a service message from the CMS, telling you of that problem. Assuming that you have addressed the message correctly, there are still a multitude of reasons why the intended person might not get the message; or got it and has not read it. The Winlink system is good, but not infallible; ditto for the rest of the internet infrastructure. "Receipt Confirmation" is discussed in a web page by K7BFL: <http://home.earthlink.net/~k7bfl/ReceiptConfirm.html>

Q145 Are there any guidelines concerning the size of messages that Winlink will accept and process?

A145 Due to the much slower transfer speeds of radio paths (compared to dial-up, etc) it is better if messages are kept as small as practical, while still accomplishing the communications objectives of both users. Following are approximate air times needed to transfer a 4K message (after compression) for several modes of operation, under ideal conditions:

Packet (1200) direct	2 minutes	
Packet (1200) 1 Node	2.5 minutes	
Packet (9600) direct	1 minute	
Pactor 1	30 minutes	
Pactor 2	10 minutes	
Pactor 3	1 minute	
Telnet (Internet Access)		seconds

Messages containing "emotions" and "backgrounds" contain embedded image files; which should be avoided, if possible. These images can be stripped from your incoming messages by setting your Attachments Limit to 0. However all other "useful" Attachments will be stripped also!

Winlink (except when using Keyboard or Web Message Access) will process Attachments of many file types. Some file types comes with significant "overhead". This overhead can be reduced by changing the file to a txt, rtf, or csv file, if appropriate.

Image files should be as small as practical!

Q150 After I download a message from a PMBO how is it deleted from the Winlink system?

A150 The message is immediately deleted from the PMBO. The PMBO notifies the CMS that the message has been downloaded. The cancelling of messages at other PMBO which are in your Routing Table (after a message has been downloaded from one PMBO) may take up to 10 minutes depending on loading and PMBO polling cycles. If you connect to another PMBO before that time it will try and PROPOSE the message again but AirMail or

Paclink AGW should always reject it as having already been received. This is not that uncommon.

If you connect to another PMBO using a different computer or installation of Paclink AGW or AirMail or do a completely clean re install of those programs then of course the duplicate blocking feature is lost since there is no longer any record of MIDs (Winlink message identifier) received. In other words, if you connect and download a message from PMBO "A" with AirMail and then connect to PMBO "B" with Paclink AGW there will be no duplicate message blocking functions since the two programs are not communicating the MIDs received between themselves.

Q155 What are some of the design principles of the Winlink system and associated software?

A155 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".

Q160 Does Winlink support Linux or Macintosh operating systems?

A160 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.

There is a version of the Telpac gateway that runs under Linux and several have used this to add Packet gateways to WL2K...again this is more of a server function than user access. See Q9100.

A Linux version of Paclink AGW is being developed by N2QZ.

You can use AirMail which runs on a Mac using the windows emulation, such as Soft Windows. This may be a bit sluggish, depending on the speed of your computer, but will work.

Airmail also runs fine on a Mac under Virtual-PC. The only wrinkle has to do with

USB/serial adaptors not AirMail, either map the serial-port from the Mac side OR enable VPC's USB support and install the Windows USB drivers. But don't do both, that ties the serial ports into knots.

You can also run AirMail under WINE on Linux.

If you mean as a WL2K PMBO the answer is no; those are only Windows .NET programs running on Win 2000 or Win XP. Perhaps someday there will be a .NET runtime for the Mac which would make things a lot more transferable.

As a last resort you can access WL2K via any dumb terminal program on packet in keyboard mode. This is not recommended...it is error prone, does not allow attachments etc; but it will work in an emergency. HF access via keyboard is very restricted due to its inherent inefficiency.

The Winlink Development Team is open to integrating other operating system software into User programs. If you are or know a good Mac programmer we will encourage him and help him if he would like to write a Native Mac client. It really isn't that hard. We will give the VB.NET source if they wish.

If you have such programming expertise and want to donate your time, please contact the System Administrator, K4CJX.

Q170 Why doesn't Winlink use the TCP protocol?

A170 Tests done early in the development process indicated that the B2F format we use resulted in higher throughput than using the TCP protocol, which has much unnecessary overhead for radio use.

Q180 While monitoring transmissions from WL2K stations, I notice that the content appears as "gibberish". Isn't this illegal?

A180 The content looks that way because it is a compressed binary format called "B2F." This format is available to anyone, so the compressed data is not considered encryption or illegal for radio amateurs. Additional information about B2F is at:
<http://www.winlink.org/B2F.htm>

Data transferred through Winlink 2000 is not considered to be Secure.

Data transferred through Winlink 2000 using the Keyboard method is not compressed, therefore it is readable by other listeners.

Q185 What document(s) explain the components of a packet exchange in Paclink or Airmail? A question has been raised specifically regarding the "FF, FC, FS, FQ, EM,& YY" that shows up during a session. What do each of those mean?

A185 What you're seeing is a BBS forwarding exchange where the two connected systems propose transmission of messages they have available for the other user, and list which messages they wish to receive of those proposed.

For documentation of the basic F6FBB BBS proposal exchange, see:

<http://www.f6fbb.org/protocole.html>

For a documentation on the B2F (FC proposal) enhancements implemented by WL2K software, see: <http://www.winlink.org/B2F.htm>

Q190 I am active in MARS and the National Traffic System, handling messages using the “Winlink 2.9” software. Can I use this software with Winlink 2000?

A190 No, it is not compatible. The Winlink 2000 system is an off-spring of Winlink 2.9. AirMail is similar to Winlink 2.9, but has MANY differences. A major difference is the message routing process. Winlink 2000 does not support “H-routing”. Winlink 2000 is centered around the SMTP email standard.

Winlink 2.9 was written by Victor D. Poor, W5SMM, who has continued to write software for Winlink 2000. You can read more about the history of Winlink at: <http://www.winlink.org/History.htm>

AirMail can be used to send and receive NTS radiograms via the NTSD system, by accessing the NTSD “Area Hub” pactor stations. See the instructions by AE5V at: http://home.earthlink.net/~bscottmd/airmail_ntsd.htm

Q200 How can I send a Radiogram via Winlink 2000?

A200 It 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. See the instructions by AE5V at: http://home.earthlink.net/~bscottmd/airmail_ntsd.htm Also see Q6100.

Q205 How can I find the location of a Winlink user?

A205 If you have access to the web, go to <http://www.winlink.org/positions/PosReports.aspx> Click on the dot of the approximate position of the station you are looking for. Click again on “View Position Reports” to see all of the recent reports from that station.

If you do not have access to the web, and are using Airmail, send a “Position Request” message via Message Index....Window....Winlink-2000....Position Request.

Q210 What are some of the Limits associated with Winlink?

A210 Attachment size maximum: 100000 bytes

Message size (inbound for a Winlink user): 100000 bytes

Message size (outbound): none

Attachment name size maximum: 50 characters (including extension)

Message Routing (retention period) from the CMS to a PMBO, for a particular Winlink user address: 90 days

Life of an Unread message: 21 days

Registration period for a Winlink user: 400 days since last access via radio or Telnet (Internet Access)

Life of a Tactical Email Address: 400 days since last use

Life of a email address in your Whitelist: 400 days since you last sent a message to that address.

Tactical address name length: Current Tactical addresses are limited to 12 characters total (including any "-") preceding the "@winlink.org". See Q7030.

User daily time limit for HF users is defaulted to 30 minutes. The PMBO operator may change that default, or customize it for different modes (pactor 1, pactor 2, pactor 3) and different users. If you have specific larger needs, email your request to the PMBO operator (pmbocallsign@winlink.org).

There are no User daily time limits associated with a Telnet Gateway (packet) or Telnet (Internet Access).

Q212 I just got a “message not delivered” service message from the WL2K Common Message Server. Why?

A212 The WL2K outbound Email (SMTP) client will try and send your outbound mail directly (no relays) to the end recipient 10 times over a period of 5 hours. If it still fails (in this case because it appears the ISP is not accepting or blocking the connection) it gives up and sends a failure notice to the originator.

Most of the times these failures are due to:

- (a) Improperly listed public MX record for the destination domain
- (b) Some form of spam or other filtering mechanism used by the ISP
- (c) The server is off line or otherwise down. If multiple servers for a domain are available (as listed in the MX records) all are tried.

Q217 What kinds of Attachments will the Winlink system accept?

A217 All except .exe and .zip. Attachments are not useable when accessing via the Winlink web page or when using the Keyboard Method.

Q220 Is there a document describing the Specifications of the Winlink System?

A220 There is a document named “New Rules of Engagement for the Winlink 2000 System” (revised 1/19/2005). It describes some specifications of the system.

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

Q225 Please review for me all of the possible ways I can access my Winlink email account.

- A225
1. Winlink web page....Message Access (Attachments not supported)
<http://www.winlink.org/MailAccess.htm> [Note: The Winlink system must have been accessed by radio or "Telnet" at least once after November 13, 2006; to enable this method of accessing your mail.
 2. Internet connection....Telnet...AirMail or Paclink AGW
 3. Radio....packet.....AirMail or Paclink AGW
 4. Radio... packet....Keyboard Access (Attachments not supported)
 5. Radio...pactor...AirMail
 6. Radio...D-Star...Paclink AGW

Q227 Is there any priority associated with the downloading of messages to a user?

A227 In general, smaller messages are downloaded before larger messages.

Q230 What are the rules regarding Winlink and "Third Party Traffic"?

A230 [from: <http://www.winlink.org/guidelines.htm>]

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.

Q235

What are the differences between AirMail and Paclink AGW?

A235

Attributes of Winlink User Software

	Generic Terminal	AirMail	Paclink AGW
Useable for Telnet?	No	Yes	Yes
Useable for Packet?	Yes	Yes	Yes
Useable for Pactor?	No	Yes	No
Useable for "peer-to-peer"?	Yes	Yes	No
Can be used with a Sound Card?	Yes	No	Yes
Can "timeshare" with other packet software?	Maybe	No	Yes, if different callsigns are used with each piece of software
Can be used with most any TNC on packet?	Yes	No, limited	Yes, if the TNC can be placed in the KISS mode
Can be used with older computers?	Yes	Yes; Windows 95	No; Windows 2000
Ease of Initial Setup?	Yes	one self-extracting file	four programs: AGWPE, .NET Framework, Paclink AGW Post Office, Paclink AGW
Ease of Use?	Yes/No	Yes	Yes
Message Administration?	None	Built-in "Message Index"	Outlook or Outlook Express or Eudora or
Scripting for Connects?	No	No	Yes
Able to do a "Keyboard" connect?	Yes	Yes	No
Address Book?	No	Yes	Yes
"Catalog" of Weather, etc. messages?	No	Yes	No
Uses compression of data	No	Yes	Yes
Cost of software	\$0+	\$0	\$0-\$49

by K7BFL 4/5/2006

Q240 What Discussion groups are concerned with Winlink?

A240 <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/SCAMPprotocol/>

For the development of a Sound Card message protocol called SCAMP (Sound Card Amateur Message Protocol)

<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, WinLink2000 station status and new station additions are all welcome on this list.

http://groups.yahoo.com/group/mars_wl2k/

This Yahoo group is for the use of Army, Air Force and Navy - Marine Corps MARS (Military Affiliate Radio System) members interested in the establishment and use of Winlink 2000 network technology. It is not an official forum. Messages posted here, unless otherwise noted, are the opinions of the poster. Do not discuss matters such as specific frequencies or channel designators on this Group. This group is for technical assistance to WL2K users and sysops, NOT for arguments of whether we should/shouldn't run Winlink.

Q250 Is there somewhere I can see how many messages the Winlink system has handled last month?

A250 Yes. From the Winlink web page go to ...Winlink Stations... Network Status of Public PMBOs in Real-timeCMS Traffic
<http://www.winlink.org/status/CmsTraffic.aspx>

Q260 I am testing my new Winlink setup by sending an email from my Winlink account (K2ABC@winlink.org) to myself at the same account. Nothing shows up. Why?

A260 That particular transaction is not allowed by the Winlink system.

Q300 Does Winlink comply with Part 97 of the FCC Rules?

A300 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:

- For Wider than 500 Hz: 97.221 (b) A station may be automatically controlled while transmitting a RTTY or data emission on the 6 m or shorter wavelength bands, and on the 28.120-28.189 MHz, 24.925-24.930 MHz, 21.090-21.100 MHz, 18.105-18.110 MHz, 14.0950-14.0995 MHz, 14.1005-14.112 MHz, 10.140-10.150 MHz, 7.100-7.105 MHz, or

3.620-3.635 MHz segments.

- For 500 Hz: 97.221 (c) A station may be automatically controlled while transmitting a RTTY or data emission on any other frequency authorized for such emission types provided that: (1) The station is responding to interrogation by a station under local or remote control; and (2) No transmission from the automatically controlled station occupies a bandwidth of more than 500 Hz.

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

- (e) No station may be automatically controlled while transmitting third party communications, **except** a station transmitting a RTTY or data emission. All messages that are retransmitted must originate at a station that is being locally or remotely controlled.

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

- §97.219(c) provides protection for licensees operating as part of a message forwarding system. "...the control operators of forwarding stations that retransmit inadvertently communications that violate the rules in this Part are **not accountable** for the violative communications. They are, however, responsible for discontinuing such communications once they become aware of their presence.

Winlink 2000 complies with §97.309 for data emission codes:

- (4) An amateur station transmitting a RTTY or data emission using a digital code specified in this paragraph may use any technique whose technical characteristics have been documented publicly, such as CLOVER, G-TOR, or Pactor, for the purpose of facilitating communications.

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.

Q350 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?

A350 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 "BBS" for Winlink users who can access that PMBO. If N3ABC and K3KK can both access PMBO K4CJX, 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 to and from the PMBO stations.

Q520 The SCS TNC's that do Pactor 3 seem to be "expensive". Is there any "discount" program?

A520 The TNC's made by SCS contain a LOT of technology. Discounts are available from Farallon Electronics for qualified users. See: <http://home.earthlink.net/%7Ek7bfl/SCSDiscount.pdf>

Q600 How do I change my Attachments limit?

A600 This can be done via the Winlink web page....Message Access....User Profile. The limit is in bytes.

The Attachments limit can also be changed by sending an "Options" message to the Common Message Servers with the AirMail program. See Q670.

Go to: Message Index....Window...Winlink-2000....Options Message

Or:

Go to the Winlink web page...Message Access...User Profile

[Note: The Attachment Limit filter is not used by a PMBO station when downloading to a Winlink user directly (without using a Telpac Winlink Gateway) via the Telnet (Internet Access) method]

Q620 I will not be accessing the Winlink system for several months. Is there a way to have all of my incoming Winlink emails diverted to another email account?

A620 Yes, go to the Winlink web page....Message Access...User Profile.

Q630 How does the Winlink system deal with Spam?

A630 Messages incoming to Winlink users are filtered by the Central Message Server (CMS). Individual Winlink Users have the choice of two different filter methods: "Spam Threshold" or "Whitelist". "Whitelist" is the default method for new users. Your choice may be changed at any time.

Q650 How does the "Whitelist" function?

A650 Regarding use of the "WHITELIST" method: messages sent to you from other Winlink users bypass the Whitelist filter. The "Whitelist" option also allows other messages to be downloaded to you if the message was sent from an internet email address on YOUR Whitelist.

Since you have been on the system, you have been accumulating e-mail addresses in your Whitelist, assuming you have sent them. This accumulation works even though your WHITELIST has been turned off. Accumulated email addresses in your Whitelist may be viewed via your password protected WebMail account. Additions to the Whitelist may also be made from your part of the Winlink web page "WebMail" account. Addresses in your Whitelist remain there for 400 days after you last sent a email to that address.

Associated with the WHITELIST is a "Whitelist Notice" switch. OFF means that you will not know which messages the system rejected. ON means that you will be notified. This is a one-time notice for each email address.

EFFECTIVE, MONDAY, NOVEMBER 13, 2006 THE WHITELIST FOR EACH USER WILL BE DEFAULTED TO "ON" AND THE WHITELIST NOTICE WILL DEFAULT TO "OFF."

Q660 How does the “Spam Threshold” function?

A660 The “Spam Threshold” method only allows messages which score more than the threshold to be downloaded to you.

SPAM THRESHOLD: (Integer between 2 and 10, a good value is 4 or 5, and 200 turns the SPAM filter OFF. Turning the SPAM filter OFF is not recommended even if the Whitelist is used. 3 is a tight filter, 8 is a loose filter. The default value is 4.

Q670 How do I change my Spam Filter values?

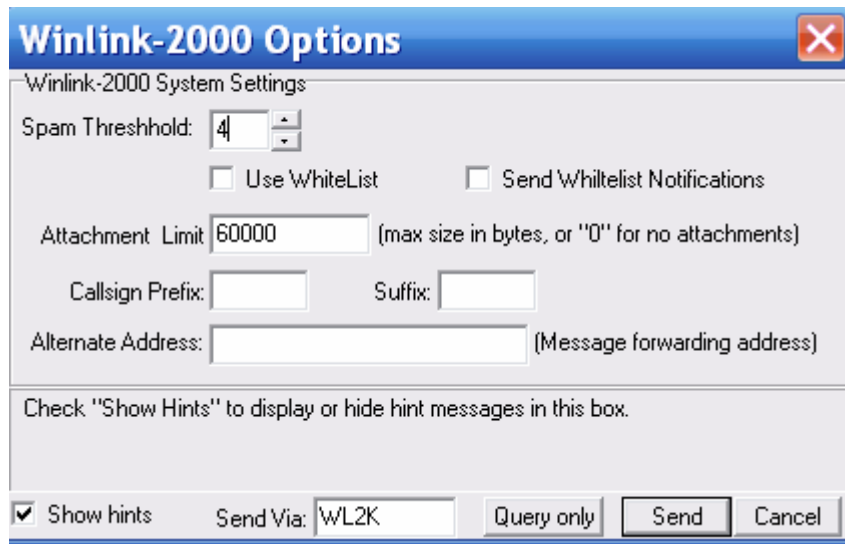
Q670 There are two ways:

a) Send an Options message over the radio or via Telnet (Internet Access) to accept, reject or delete domains or specific email addresses. You may do this in bulk with one message.

b) You may log into your Winlink 2000 WebMail account [www.winlink.org/WEBMAIL], and do all the manipulation there using a Web Browser.

The individual Winlink 2000 user has TOTAL AND COMPLETE control over the amount of unwanted message rejection they wish to deploy for their own account. Control options may be sent via Winlink to the "SYSTEM" for controlling the way you receive e-mail from the Internet. Please observe these options and make your individual choice.

Options Message (created with AirMail)



1. You may turn your individual WHITELIST OFF, or leave the WHITELIST ON, and turn on the NOTICE of who is attempting to send you and email. This is advisable ONLY if you do not have a problem with SPAM. It is a simple step to take, using AirMail's Options Message in version 3.3.076 or greater, via similar manually produced Options message.

2. If you leave the Whitelist ON, you may manually load individual Internet

e-mail addresses into the WHITELIST in several ways:

Below are instructions for the manual commands, which illustrate how to manipulate your individual Whitelist. It is good to know these commands in case you need to make a change without the use of the Internet, or without the use of AirMail. Also, it is highly recommended that you go to the Winlink WebMail page [www.winlink.org/WEBMAIL] and assign yourself a password if you have not done this, already. Your default password is your callsign.

1. Each message you send to an Internet E-mail address from Winlink will be recorded in your Whitelist. This has been taking place even with your Whitelist turned OFF.
2. You may send a special message to the SYSTEM, giving it instructions for turning the Whitelist OFF/ON, and the Whitelist Notice OFF/ON. If you set the Whitelist to OFF, you also need to define the Spam Threshold value.

The special message should contain the information below, one line per individual instruction:

WHITELIST. To Activate the Whitelist, use the word: ON, TRUE, or YES. To deactivate the Whitelist, use the word: OFF, FALSE, or NO.

WHITELIST NOTICE: In addition, should you wish to receive a one-time notice that someone NOT on your Whitelist is trying to send an e-mail to your Winlink address; you can turn the WHITELIST NOTICE "ON."

SPAM THRESHOLD: (Integer between 2 and 10); a good value is 4 or 5, and 200 turns the SPAM filter OFF. Turning the SPAM filter OFF is not recommended even if the Whitelist is used. 3 is a tight filter, 8 is a loose filter.

Remember, if you turn the Whitelist notice "ON," it will automatically reject email from the incoming address until you change the status by sending an e-mail to that address, or sending a specific command to change the address status. Examples are given below. These are NOT case sensitive

Here is an example of using the Whitelist, turning the Whitelist notice ON (the message is created either with AirMail or Paclink AGW).

```
TO: SYSTEM
Subject: OPTIONS
-----
```

Whitelist: ON

whitelist notice: OFF

Here is an example of no Whitelist and SPAM Control:

TO: SYSTEM
Subject: OPTIONS

Whitelist: OFF

Spam Threshold: 4

USING THE WHITELIST:

NOTE: Again, the Whitelist will contain all e-mail addresses sent FROM your Winlink e-mail address even if you do not actually activate the list, and retain these Internet e-mail addresses for a period of 400 days from your last e-mail to that address. You may also send a special message to activate, delete, or reject individual e-mail addresses or entire domains, such as "arrl.net". This is described below.

Sending the following e-mail to: SYSTEM with subject: WHITELIST will assist you in controlling your own personal Whitelist. In the message body, the following options are available. In the message body of this special message, you may put the following:

LIST - will return a list of all Whitelist entries for the user.

ACCEPT: jblow@somewhere.com - will allow messages from jblow@somewhere.com to be accepted. You may send multiple lines, each containing one e-mail address.

Reject: jblow@somewhere.com - will reject any messages from jblow@somewhere.com. You may send multiple lines, each containing one e-mail address.

Delete: jblow@somewhere.com - will remove jblow@somewhere.com from the user's Whitelist. You may send multiple lines, each containing one e-mail address.

IMPORTANT NOTE: Domain Entries without the "@" will be treated as "domain names" only. For example if "Accept: sailmail.com" were entered, then ANY message from that "domain name" (sailmail.com) would be accepted.

Again, the user's Whitelist is updated continuously, even if the user has the Whitelist feature turned off, and will still build history, which will be functional if it is turned ON.

An example of such a message to control the Whitelist:

TO: SYSTEM
Subject: WHITELIST

Accept: Joe@somewhere.com < This is in the Message Body

Another example:

TO: SYSTEM
Subject: WHITELIST

Accept: Joe@somewhere.com

Accept: Bill@someplace.net

Accept: Judy@noplac.org

Delete: joan@overthere.com

Delete: steve@someplace.net

Reject: ed@thatplace.net

Reject: nogood.com

Accept: sailmail.com

Accept: ARRL.org

Accept: ARRL.net

WebMail User Profile (www.winlink.org/WEBMAIL)

Review the "Spam Settings" for your profile. Add, delete, or change what is needed.
[Review the information above.]

[Note: In order to access your WebMail User Profile, you must have established yourself as a Winlink user by accessing the system via radio or Telnet (Internet Access)]. Your default password is your callsign.

Q690 Are there situations where I might want to turn the Whitelist OFF?

A690 Yes, if you will be giving a Winlink demonstration, it would be good to turn the Whitelist OFF, prior to the demo. Many email users, including some that you may send messages to during the demo, do not have identical email addresses for their incoming and outgoing email. A Reply from one of these persons will bounce off of your Whitelist.

If you haven't used your Winlink address for more than 400 days (or have never used it), but suddenly want to use it and receive incoming email from any email address, send your first message to SYSTEM with a Subject of OPTIONS and a message body of Whitelist: OFF. See Q670.

Q950 Are there other sources of Help for Winlink users?

A950 ARRL (ARES/RACES) – General FAQ concerning Winlink 2000
<http://www.laarri.org/ARESFAQ1.htm>

Chester County (PA) ARES/RACES – W3EOC Radio Email Exercises
<http://www.w3eoc.org/RadioEmail/#top>

Harris County (Texas) ARES/RACES – Winlink Resource Page
<http://harriscountyares.org/dist14diq.htm>

AE5V – Winlink Implementation
http://home.earthlink.net/~bscottmd/wl2k_implement.htm

K4SET - The Winlink 2000 Network, Amateur Radio, and How It Could Help Your Work
<http://radioministries.org/winlink.htm>

N0IA – Tuning Packet Parameters for Best Performance
<http://home.earthlink.net/~k7bfl/TuningVHFPacket.pdf>

N7CW, KI5DR, VE3GFW – A Winlink 2000 Training Session
<http://www.joppe.net/dares/Winlink%202000%20Training%20Session.ppt>

SV2AGW – A discussion about packet TNC's built into radios
<http://home.earthlink.net/~k7bfl/TascoModem.pdf>

Icom – D Star Specifications
<http://www.icomamerica.com/amateur/dstar/dstar7.asp>

ARRL Lab (KC1SX) – Comparative Performance of Packet Radios at 9600 baud
<http://home.earthlink.net/~k7bfl/RadioCompare.pdf>

The “Pactor Primer” and “RF Interference”; two excellent articles written by Jim Corenman, KE6RK; author of the AirMail software:
<http://www.airmail2000.com/docs.htm>

AirMail Installation and Setup Instructions – W5IFQ
<http://www.tcares.org/airmailinstall.doc>

Winlink Information Resource pages:
http://www.activeham.com/winlink/wiki/index.php?title=Main_Page

Each Wednesday night on the W8FSM EchoLink server at 8:00 PM EST, (7 PM Central, etc.) there is a group that meets to discuss WL2K and related topics.

AirMail – Setup - General

Q1000 What kind of computer operating system do I need to run AirMail?

A1000 Windows 95 is the “minimum” operating system, although a more modern Windows operating system is always encouraged.

Q1005 I see that there are several “modules” in addition to the “HF Terminal”. What are their differences?

A1005 The “Telnet Client” module is used to communicate via the Telnet protocol, using an internet connection. The “setup” for this is via the Tools...Options...Modules...Telnet Client...Setup window. This module is the easiest to get setup, and is suggested as an initial means to get AirMail working. See Q4000.

The “Terminal” or “HF Terminal” module is used to communicate via HF, using pactor 1, 2, or 3. The “setup” for this is via the Tools...Options...Settings window. See Q2000.

The “VHF Packet Client” module is used to communicate via packet radio. The “setup” for this is via the Tools...Options...Modules...VHF Packet Client...Setup window. See Q3000.

Q1010 I having trouble getting AirMail to talk to my computer com port. Any suggestions? I am using a serial to USB converter between my computer and the TNC.

A1010 Some serial/usb converters work ok; some don't. Good results have been reported for those brands of Keyspan, Edgeport, IBM and Startech. Many folks are having difficulties with those sold by Belkin.

Only the Keyspan and IBM devices have been tested and listed on the Microsoft Hardware Compatibility List (HCL). Since only “listed” hardware has been tested and found to be substantially compliant, buying unlisted equipment is a gamble at best. When there's approved equipment to be found at competitive prices...I wouldn't touch the unlisted stuff with a ten foot dipole.

Things like COM ports floating (or, being able to be assigned and reserved unchanged by the driver) are symptoms of software that can't get on the approval list because someone wrote cheap drivers.

Q1020 I want to install a new version of AirMail. Do I need to uninstall the old version first?

A1020 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.

Q1040 I can't seem to get the “Earthmate LT-20” GPS receiver to work with AirMail. Any suggestions?

A1040 The original Earthmate was connected via a serial port, used a Rockwell chipset and a non-standard interface at 9600 baud. Airmail can communicate with that device if you check the "Earthmate" box.

The 2003-vintage USB Travelmate was different, and worked in NMEA mode if you told the DeLorme installer that you wanted to use the GPS with other applications also. If you made that selection when DeLorme was installed, then special drivers were installed that created a virtual com-port that would speak standard NMEA. In this mode the "Earthmate" box should NOT be checked, it is behaving as a standard NMEA GPS.

Apparently the same is true of the LT-20, except that the special NMEA-drivers are not part of the DeLorme installer. You can download the "DeLorme Serial Emulation Driver for USB Earthmate® GPS and Earthmate® GPS LT-20 Receiver" from <http://www.delorme.com/support/search.aspx>

After the new driver is installed, start AirMail and configure the proper COM port for the LT-20 in the Message Index.....Window....Position Report...Data Input....Setup window. Check the "GPS/NMEA Port Enabled" box, and select the proper COM port. Do NOT check the "Earthmate" box. Also, be sure the "Data Input...Enabled" box is checked.

Q1060 **Is it possible to get AirMail software to use on a Windows mobile PDA?**

A1060 No, sorry. Windows-CE (for mobile devices) is completely different from the Windows=95/98/ME or Windows-NT/2000/XP families.

AirMail – Use - General

Q1500 **There seems to be a very large message trying to download to me. My message pipeline is plugged! It will take too much time to download. How can I delete the message before it downloads?**

A1500 Sometimes a very large message (with or without Attachments) gets sent to a WL2K user and the attempted downloading of it results in very long air time and the inability to download other messages. There are several methods available to fix this problem:

Method 1

a. Set your program to the "Keyboard" mode. (AirMail is normally in the "Handshake" mode.

b. After connecting to a PMBO station (directly or through a Telpac), type LM. This will give you a listing of the messages waiting for you, complete with Message ID, size, and origination.

c. Find the number of the offending message. Copy and Paste its Message number into a line to be sent back to the PMBO as:

K xxxxxxxxxxxxxx [xxxxxxxxxxxxxxx is the Message ID]

d. The message will then be Killed (Deleted). You will get a confirmation of that back from the PMBO.

e. Repeat (b) to confirm that the message is no longer in the queue for you.

f. Disconnect (Disconnect Button or type BYE)

g. Connect again, in the normal Handshake mode. The Pipe will be unplugged!

h. Send a note back to the offending Sender.....

Method 1a

The KM command will work also, but ALL of your messages will be deleted.

Method 2

Download the message via Telnet (Internet Access) or the Winlink web page, if an internet connection is available.

Method 3 (not recommended)

In the AirMail Message Index Window, go to Tools...Options...Settings
Change either "Defer Incoming larger than..." or
Reject Incoming larger than... to a small number larger than 0

Method 4

Request a PMBO Operator or the System Administrator to delete the message.

Q1580 What is the "Catalog" part of AirMail?

A1580 AirMail's "Catalog" window can be used to request weather bulletins and other documents from the Winlink-2000 system for hams, and also from the Saildocs server operated by the Sailmail association but also accessible via email by Winlink users. The AirMail catalog is found under the Window menu, Catalog selection. The catalog window is divided into two panels- on the left is a "tree" showing various folders, similar to AirMail's message-index tree or Windows Explorer. These folders represent categories of documents which can be requested.

The catalog entries are organized first into sections for "WL2K" and "Saildocs". Clicking the little "+" will expand a selection, clicking a "-" will collapse it (just like Windows Explorer). The right and left-arrow keys can also be used to expand and collapse folders.

Under "WL2K" are a folder for "global" bulletins, plus a folder for each station which has been seen, containing that stations local bulletins as well as the "update" listings. Under the "global" folder are folders for each bulletin category, click on these (or use the arrow keys) to open that folder and show the contents in the list on the right side. Bulletins or documents are requested by checking the corresponding check-box, see Winlink-2000 Bulletins for more information.

Of particular interest and use for WL2K users are the WL2K_Help and WL2K_Users folders,. These folders contain messages that can request specific Help files and specific "current" information regarding Winlink users.

Under "Saildocs" is a series of category-folders. The "Grib files" category is a special folder which brings up a grib-request window with a world map for requesting grib weather-data files. See "Grib Weather Files" for more information on requesting grib data. Saildocs also includes a large number of text weather-bulletin documents which can be requested. These are organized into folders under "Saildocs" for the different ocean regions. Some areas have sub-folders to further divide the selection for easy browsing. Also, many bulletins are listed under more than one heading, for example Atlantic hurricane bulletins are listed under both "Atlantic" and "Tropical". See "Saildocs Catalog" for more information on requesting documents from Saildocs.

Q1600 How do I update the list of messages in the Catalog?

A1600 Every time there is a small change, deletion or addition to the Winlink Catalog displayed in the AirMail menu "Window>Catalog," the list should be updated to take advantage of the changes and additions.

The Update is relatively short, while obtaining a new List is a bit longer. Either way, once the change is received, AirMail automatically updates your existing Catalog list. The proper method for updating or obtaining a new list is as follows:

1. Go to the AirMail menu item "Window>Catalog."
2. On the left, expand the directory tree to show "catalog>WL2K"
3. Under Catalog, expand "WL2K" further to show all the PMBO call signs.
4. Pick a PMBO that you wish to use and Click on that PMBO call sign.

5. On the right hand side you will see both "LIST" and "UPDATE."

6. Check "UPDATE" or "LIST." If you choose "UPDATE," all changes & additions will be shown, BUT the deletions will NOT be taken away. However, if you choose "list," then you will have a fresh new shorter list. Unless otherwise instructed, an update will be adequate.

7. When you have checked either "UPDATE" or "LIST," find the same PMBO you placed the request under and send that PMBO the request.

8. Wait, and then at another time, check back into any PMBO and retrieve the information you requested. NOTE: Once the update or new list has been received, it will automatically update your AirMail Catalog List. If it does not, then YOU did something incorrectly.

Q1630 **Is there a maximum number of addressees that can appear in the AirMail "To" line?**

A1630 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.

Q1660 **How s it possible to view all addresses in the "To" line as I add them to it?**

A1660 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.

Q1700 **How can I select multiple addresses in the address book?**

A1700 Create an address-book entry called "Group" or whatever, enter one to-address and as many cc-addresses as you want, one per line. To copy/paste; use the right-click menu (or the usual windows shortcut ctrl-V to paste).

AirMail – Setup (HF Pactor)

Q2000 I have connected to a PMBO station, with a Posted message to go out, but it won't go. Why?

A2000 You may not have your BBS Forwarding Protocol set to "B2F". See Tools...Options...Settings...System Settings

Q2050 I have heard talk about my PK232MBX not working on Pactor. What is this all about?

A2050 The early PK232mbx models with firmware rev. of 7.0 and 7.1 have code in them that effects how binary files are transferred. The Winlink folks found that the B2F protocol is the most effective way to transfer files. However with older code in the firmware, the PK232 cannot use this protocol so it switches to the FBB protocol, which is slower.

The whole point is that you get a slower throughput with the older firmware. In revision 7.2 the code has been changed to accommodate B2F, but do not expect to see a major increase in throughput because it is still only Pactor 1. To see a major increase in throughput you need to go to Pactor 2 or 3 (with a SCS tnc).

The PK232mbx will not support use of the GetFAX function.

AirMail – Use (HF Pactor)

Q2500 How do I choose which PMBO station to use?

A2500 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.

Use lower frequencies (80 and 40 meters) if possible.

30 meters is a very useable “forgotten” band.

Use Pactor 3 or Pactor 2 if you have them. It saves everyone time, and makes more PMBO time available for other users.

Use one of the PMBO stations that are not quite so “busy” as others. You can get a feel for this by going to the Winlink web page....Winlink Stations...”World Map of Public Participating Radio Message Servers (PMBOs) in Real-time”:

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

Click on the station symbol....Click on “Show 24-hour Station Activity”

Q2510 I am not getting solid Connects with any PMBO. What could be wrong?

A2510 Several items could affect the performance:

See the AirMail Help files

Are you on the correct EXACT center (not dial) frequency? The main frequency chart is listed as center frequency. In the lower right hand corner of the Terminal screen on the AirMail Terminal form, you will find the actual dial frequency. The dial frequency varies with modem type and other factors, while the center frequency is always the same, regardless of mode of operation or sideband used.

Over modulation of the transmit audio? You should barely see any ALC with full output to your transceiver. This can be set up in AirMail. Read the AirMail help files. Reduce the transmit audio gain level. Less is Better.

Maybe you need a better antenna?

Maybe you have an “RF or Audio” problem due to RF feedback into your system. Use ferrite chokes and/or less power output.

Better earth ground connection or counterpoise.

If you are using a battery for power, is the battery voltage too low?

Is your transmit audio compression Off?

Is your receive bandwidth filter wide enough for the mode used? Pactor 3 needs 2.4 KHz.; Pactor 2 needs 0.7 KHz; Pactor 1 needs 0.6 KHz.

Q2520 I am not getting solid Connects with one particular PMBO. What could be wrong?

A2520 Several items might improve the performance:

See the AirMail Help files

Change to a difference frequency band for that PMBO

Try a connection at a different time of day.

Use another PMBO. It does not matter. They are all transparent to the system.

Q2530 I have connected to a PMBO and messages are flowing, but VERY SLOWLY. Any suggestions?

A2530 If you are "almost done" with the transfers, hang in there and wait for the finish.

If you will have a significant estimated time left to finish the transfer, do a Hard Disconnect (hit the Button twice). Pick another PMBO, another frequency for the same PMBO, modify your equipment for a better signal, or wait until propagation conditions improve. There are many PMBO's and frequency bands available; something usually works better...now. The Magic of Winlink!

When you make the next connection, AirMail tells the PMBO how much of the message(s) have already been transferred, and the process will continue from where it left off on the previous connection.

Q2535 When using the HF Terminal window I constantly have to use the scroll bar to keep up with the information showing in the window. How can I keep that from happening?

A2535 To fix the scrolling problem:

1. Maximize the Terminal window.
2. "Restore Down" the Terminal window (the box next to the Close Box)
3. Scroll down to the bottom of the Terminal window.

The Terminal window should then scroll up automatically. with new information

Q2550 How do I find what frequencies the PMBO stations are scanning?

A2550 AirMail has a built-in frequency list of all PMBO Stations. The scanned frequencies of a particular PMBO show up in the HF Terminal Window, when the PMBO is selected. Be sure to set your radio dial to the "Dial Frequency" shown at the bottom of the Terminal Window. The frequency shown above is (depending on setup) the Center Frequency.

Q2560 How can I keep the frequency list up-to-date?

A2560 Subscribe to a free monthly email updated list from ZS5S. See: www.winlink.org
.....Winlink Stations.... "Winlink participating station (PMBO) Center Frequency List
courtesy of ZS5S"

<http://users.iafrica.com/z/zs/zs5s/bulls/PMBO.TXT>

Q2570 How do I download a new Frequency List, using AirMail?

A2570 See the AirMail Help files; or you can order a Help file from the Catalog:

[from the AirMail Message Index Window.....Window....Catalogs...WL2K...Global...WL2K
Help..."How to Download and Import a new PMBO Frequency List"]

To download a new Frequency List for inclusion in AirMail, follow the instructions below:

1. Go to Inbox and delete any previous Frequency list message (subject) INQUIRY:LIST.
2. Go to Menu items: "Windows>Catalog"
3. Double Click on folders: "WL2K>Global>ZS5S_Bulls" and then check "PMBO" (on right screen.)
4. Check into a PMBO to send the request.
5. Check back into any PMBO to obtain a new frequency list, subject: "ZS5S Directory of Winlink-2000 PMBOs (INQUIRY:LIST)"
6. Go to inbox and highlight the Frequency List, "SERVICE@WL2K INQUIRY:LIST"
7. Go to menu item "Tools>Make Frequency List." The list will appear on the screen.
8. Click "Update" and then "Save" the frequency list [see Q2580].

Q2580 After I have downloaded the new Frequency List, how do I install it in AirMail?

A2580 See the AirMail Help files; or ---:

1. Make sure that the new list is in the "Program Files...AirMail....Import" folder.
2. Open AirMail. The new list should be in your In Box. Select it.
3. Go to "Tools....Make Frequency List".
3. Scroll through the list, verify that it is the "new" list.
4. Click the "Update" button, the program will go into a frenzy of formatting.
5. Click "Save" the frequency list.

Q2600 **Are there some “maintenance” things I should be doing to keep AirMail and my part of WL2K running smoothly?**

A2600 Yes, like most hardware and software, revisions occur.

a) Frequency List. See Q2560 and Q2570. This should be done every 1-2 months, only if you are using the HF part of WL2K

b) Airmail Catalog. You should probably update this 2-3 times each year. See Q1580 and Q1600.

c) If you are using a TNC, update the Firmware. If you have a SCS TNC, it is updated about every year. Check the SCS web page for news about a new release. The latest is version 3.7. Your version number will show on the Terminal Window when you start up. The updating process is a shore chore, using the internet

- a) download from the SCS web page
- b) start Airmail
- c) Tools....Update PTC Firmware

d) Airmail software. The latest version is 3.3.080beta. Available from www.winlink.org Downloads

e) Winlink FAQ file. This is a pdf user "help", revised several times each month. Download from www.spokares.org Please send new material to K7BFL@winlink.org as you learn things that other folks might not know. You are now using that file!

AirMail – Setup (VHF/UHF Packet)

Q3000 I have one of the new Kenwood radios (D700) with a built-in TNC. Will it work with AirMail (Packet Client module)?

A3000 Not with the built-in TNC. There are a couple of places that talk about AGW and AirMail or AGW and the D700. The first place is the SV2AGW web site: <http://www.elcom.gr/sv2agw/hardware.htm> . The second is the release notes that came with your AirMail version 3.2.035 download.

Other radios which have this same packet performance are the Kenwood TS-2000, TH-D7, and Alinco DR-135. The radios will work fine if used with an external TNC supported by AirMail. See <http://home.earthlink.net/~k7bfl/TascoModem.pdf>

The built-in TNC will can also access Winlink via the “Keyboard” method (see Q8000).

It can also access Winlink in a limited manner by using the special APRSLINK method described at: www.winlink.org/aprslink.htm

Q3010 I am using AirMail 3.3.048. I would like to use the Packet Client module with my Sound Card, using the AGW-PE “TNC” selection. It doesn’t seem to work at all. What am I doing wrong?

A3010 Nothing. The reference to “AGW-PE” was mistakenly left in the code by the AirMail author, who is in the process of writing code to enable FUTURE versions of AirMail (Packet Client module) to work with Sound Cards and TNC’s using KISS, with the addition of the AGW-PE software. Stand-by!

Q3020 I have the Packet Client module configured, but I can’t seem to be able to connect to any Telpac Gateway stations. Help!!!

A3020 You may have some basic packet setup deficiencies. With the same equipment, can you connect to ANY other packet stations? Are you on the correct frequency? Is your transmit audio level set properly?

There are a couple of books available which describe some of the basics of setting up and operating a packet station. They are: "Your Gateway To Packet Radio" and "Practical Packet Radio", both written by Stan Horzepa, WA1LOU. Both books are out of print, but can be obtained at reasonable prices from your local used book store or on-line book sellers.

N8UR has excellent basic packet audio level setup information available at: <http://www.febo.com/packet/layer-one/transmit.html>

VK1OD has an excellent web page on “Amateur Radio application of Frequency Modulation” at: <http://www.vk1od.net/FM/FM.htm>

KC2RLM has a great web page regarding “Sound Card Packet” at: <http://www.patmedia.net/ralphmilnes/soundcardpacket/>

Larry Kenney (WB9LOZ) has an excellent "Introduction to Packet Radio", available from: <http://www.choisser.com/packet/>

Q3025

I get a major amount of RF noise generated somehow from my laptop. This often interferes with the ability of the PTC Iie modem from linking with the incoming Winlink station. Some of the noise is reduced when I simply get out of AirMail. This leads me to think it might come down the USB/serial ports for controlling the rig and/or the USB/serial port for the SCS PTC modem.

I switched to a newer laptop and found the noise level significantly less. However the laptop still seems to bump up the RF noise level.

I have several RF choke coils around the power leads, the serial computer control cable, and the PTC modem serial cable. Any solutions?

A3025

Laptops DO generate an incredible amount of noise. If you are using an HT the best solution is to use an external antenna. This puts some distance between the laptop and the transceiver's antenna. A 20 foot distance may help.

Other possible remedies:

- 1) Switching power supplies for Laptops. Use an Aircraft grade supply.
- 2) Put ferrite chokes (snap ons) on all the cables coming from the computer serial, mouse, power etc.
- 3) Use a RF filtered DC source for the Transceiver....make sure it has 20+ ampere capability.
- 4) Bypass other sources (Refrigerators, bilge pumps, chargers, alternator etc) at the source with good quality RF bypass capacitors.

Get a good book on RF Interference. Read the AirMail Help files.

There is usually no one silver bullet...normally several things each reduce the noise a smaller amount.

Useful information about RF ground systems is available at: <http://www.radioworks.com/nbgnd.html>

Q3030

I am using a KPC3+ with AirMail Packet Client, telling AirMail that it is a "KPC3". The TNC uses software (XMITLVL) to set the audio transmit level. I set the value to 130 with another program, before starting the packet client module. Everything works fine, until the next time I start the packet client module; the value has been reset to 100 (default). How can I get AirMail to not change the XMITLVL value?

A3030

Tell AirMail that you have a KAM+.

Here is another solution to the problem (from VA3RSA):

REASON FOR THE PROBLEM:

When setting up the "VHF Packet Client", the KPC-3+ user will usually select the KPC-3

type TNC (nearest to KPC-3+). The TX Audio Level selection box is "greyed out" (can't be changed) with a fixed value of 500 (millivolts).

The results are saved to the Airmail.ini file under the [Packet Client] section with TX Level 500. When the "Packet Client" is started, Airmail will initialize the TNC. The value that has been set for XMITLVL will be 280 (a result of the KPC-3+ converting 500 into digital setting 280). This can be verified by closing the "Packet Client" and opening the "Dumb Terminal". At the command prompt cmd: type 'xmitlvl' and it reports 280.

SIMPLE FIX (WORKAROUND):

On my own KPC-3+ (ver. 9.1 ROM) I use XMITLVL 48 in combination with the radio's digital drive level setting (other user's may have completely different settings). I observed that the "TX Audio Level" box can be "ungreyed" (i.e. made active/changeable) by selecting the TNC type as any one of the PTC-II types. Non-PTC-II TNC's leave the box "greyed out" (unchangeable). I selected the PTC-IIe (one-port type) and set the drive level to desired value (may require experiment etc.). In my case entering 24 millivolts sets my XMITLVL to 48 which is what I want. Go back and select the "KPC-3" TNC and save all settings.

CONFIRMING THE CHANGES: Checking Airmail.ini will confirm the setting TX level 24 (which will get converted to xmitlvl=48). Next, start up the "Packet Client" and let the TNC initialize. Then close down the "Packet Client" and start the "Dumb Terminal". You should find that XMITLVL is 48.

NOTE: The user must determine by experiment the correct setting of XMITLVL for their KPC-3+/radio combination resulting in the correct TX deviation level (for my radio it happened to be 48). Then adjust Airmail's "TX audio level (millivolts)" setting to give the required XMITLVL number (for my case it was 24 millivolts).

Q3050 I am having trouble with AirMail talking to my PK232MBX. My terminal program works ok. What is the problem?

A3050 Most likely the problem is that your serial port was configured using your Terminal Program and those settings do not match those required by AirMail. There are a few different approaches to fixing this problem. Here is one.

1. In you Terminal Programs, such as WinPack, go to the cmd mode and type RESET. This will reset you TNC.
2. Change the setting in your program to the following: Baud rate=9600, Start bit=8 parity=none, Stop bit=1 and Handshake=Hardware. Save the changes.
3. Now send the Autobaud "*" cmd to the TNC and you should get the sign on message.
4. Close your Terminal Program and open AirMail. Make sure you have AirMail set up to the correct serial port and the right baud rate. You can check this by going to "Tools-Options" and going to the "connection tab" and check the settings. Also go to the "module tab" then to VHF Packet Client and then to the "setup" box and check the settings there. Make changes if needed and save the setting. Now AirMail should work for you.

NOTE: Make sure you make the changes before you send the Autobaud command or you will be right back to where you started from.

Q3080 When I close AirMail and open my Terminal Program not all the functions work right. What may be wrong?

A3080 AirMail turns off several functions that it does not need, such as Monitor. To restore those functions you need to reset the TNC. Here is how:

1. Close the Packet Client window
2. Go to Tools....Dumb Terminal and wait for the cmd prompt to come up.
3. Type RESET and hit the Enter key. You will see many boxes with zeros and eight's in them.
4. Now send the auto baud command and you will see the TNC sign on message. Now close the dumb terminal and close AirMail.
5. Open your terminal program. You may need to enter you call and the date/time again. Your terminal program should be ready to go.

Q3100

I can not get the Packet Client window to connect to a local VHF ham station, in fact the Icom 706 MkII G doesn't transmit. (The window shows that AirMail's Packet Client is connected to the SCS IIe modem).

The modem (SCS IIe) indicates it is trying to connect to the rig w red light "SEND/PTT" coming on periodically apparently trying to get the rig to transmit.

AirMail works great for me on HF, with the same equipment.

What am I doing wrong?

A3100

The 13 pin DIN on the back of the Icom 706 and IC-7000 normally has one PTT pin for HF control, and another pin for VHF/UHF control. You can solve your problem three ways:

1. Obtain another cable that uses the VHF transmit control pin.
2. Obtain another cable that connects to the microphone jack on the 706; that cable will work for both HF and VHF control.
3. Use the software menu on the radio to enable the HF control pin and the VHF/UHF control pin to be the same pin [from Gary Wood (K6AUD) of Farallon Electronics]

706MKIIG

Set menu item 30 (see page 54 in the ICOM manual) to the OFF position. This activates H-Send (PTT) on pin 3 for all bands. The 13 pin input on the 706MKIIG will work for both Pactor and packet operation with the SCS PTC-IIe, PTC-IIEX, and the PTC-IIUSB modems. If you're using a PTC-II or a PTC-IIPRO containing a plug-in DSP packet module, then you will need to use our #8120 cable for 1200 Baud, or our #8050 cable for 9600 Baud, which will connect from the Packet port on the modem to the 6 pin mini-DIN packet connector on the rig.

IC-7000

Set menu item 20 (see page 131 of the Icom manual) to the OFF position. This activates H-Send (PTT) on pin 3 for all bands. The 13 pin input on the 706MKIIG will work for both Pactor and packet operation with the SCS PTC-IIe, PTC-IIEX, and the PTC-IIUSB modems. If you're using a PTC-II or a PTC-IIPRO containing a plug-in DSP packet module, then you will need to use our #8120 cable for 1200 Baud, or our #8050 cable for 9600 Baud, which will connect from the Packet port on the modem to the 6 pin mini-DIN packet connector on the rig.

AirMail – Use (VHF/UHF Packet)

Q3500 How do I find a working Telpac Gateway in my local area?

A3500 Where are two pages on the Winlink web site that will give you the information. The first one is a map of Telpac 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>

Select the station symbol on the map or select the station call in the list to obtain detailed information about the station’s location, frequency, etc.

A “Network Status of Telpac Gateways in Real-time” tells you the time since a station last checked with the Common Message Server:

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

Many PMBO Stations also provide connections for packet users, but they are not listed as a “Telpac Gateway”. From the Winlink web page go to “Winlink Stations” to get the info regarding a particular PMBO station.

Q3520 I just connected to a Telpac Gateway Station (K7BFL-10) through a node (WR7VHF-4). I had Posted three messages via K7BFL-10. None of my messages got sent. Why?

Q3520 The messages also may need to be Posted to the FIRST station (WR7VHF-4) you connected to in the connection process.

Q3530 I am attempting to connect to a Telpac Gateway Station through a node called SEATAC. I cannot connect to the node because I get a error message “AirMail not licensed to this call sign”. Does AirMail need a license?

A3530 No, AirMail does not need any special licenses for amateur radio use. You got that error message because you tried to connect to a node “alias” name, instead of the node’s call sign.

Q3540 Will AirMail work with more than one digipeater?

A3540 AirMail will work with more than 1 digipeater or node. The procedure:

1. Select the Keyboard mode.
2. Enter the Call of the first digi in the "Connect To:" box
3. After connecting to the first digi, type in the lower split screen
c digi2callletters
4. After getting a connection confirmation..
5. repeat steps 3 and 4 until you are connected to the Telpac Gateway Station
6. Select the Handshake mode

Messages will now flow automatically (but SLOW....). Use MAXFRAME=1

Q3560 I am using AirMail to send an email to K6SSS-4. He doesn’t get it, but he does get it when we use Paclink AGW. Is there a problem?

A3560 AirMail versions prior to 3.3.048 will not support dash-number calls (as a Winlink user). 3.3.048 will support dash-number calls as independent user callsigns (not to be confused with packet dash-number SSID's). Note that for Pactor use, 6-char callsigns can only use a single-digit suffix (i.e. 6 letters plus a dash plus 2 digits won't work for Pactor, but will work for packet).

All recent versions of AirMail will support the use of packet SSID numbers for packet connection purposes only.

Q3580 How do I set up a Tactical email account for AirMail?

A3580 Tactical email accounts are not useable with the AirMail program.

Q3600 In the Packet Client window; how do I delete some of the entries in the "Connect To" list?

A3600

1. Stop AirMail
2. Navigate to C:\Program Files\Airmail
3. Open airmail.ini with Notepad.
4. Scroll down until you see a bunch of CONNECT TO entries.
5. Delete at will.
6. Renumber the list, in sequence.

Q3640 Is there a maximum number of addressees that can appear in the AirMail "To" line?

A3640 See A1630

Q3660 Is it possible to view all addresses in the "To" line as I add them to it?

A3660 See A1660

Q3680 How can I select multiple addresses in the address book?

A3680 See A1700

Q3700 I am using a PK232mbx TNC, with the latest firmware (7.2). It is working fine with Winlink packet for normal messages. However when I try to send a message with a 15K Attachment, the process hangs up. Why?

A3700 That particular problem has been experienced by many others; the cause is unknown. Downloads TO you are ok; uploads FROM you hang up if the compressed attachment is greater than about 5K. You can accomplish the task by re-connecting to the Telpac station. AirMail will continue sending the remainder of the file.

AirMail – Setup (Telnet via internet connection)

Q4000 **What is a “telnet” connection?**

A4000 Telnet is an Internet protocol that allows the user to connect to a remote computer. AirMail has a communications module called the “Telnet Client”. 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.

Q4010 **How do I setup AirMail to use a Telnet (Internet Access) connection?**

A4010 (This Telnet information may be found in the Global Catalog under WL2K_Help).

AirMail Telnet Client setup. Go to AirMail 3.x menu item: "Tools>Options>Modules" and check the Telnet Option. If you wish you can also set the module to initialize when bringing up AirMail by also checking "autostart." However, if you wish to start the module manually, then go to menu item: Module>Telnet client."

Below are the settings for AirMail 3.x Telnet module option for the PMBOs supporting a Telnet Server:

K4CJX	(Remote Call Sign)
k4cjsx.no-ip.com	(Remote Host)
12001	(PORT)
120	(Timeout in seconds)
WL2KTELNETCLIENT	(Password)

The full help file may be downloaded from the Global Catalog list under WL2K_HELP..

If possible, use a PMBO other than K7CJX or KN6KB. Let’s spread the load to other PMBO stations! Other possible PMBO stations with Telnet include: WU3V, N0IA, W7IJ, K6IXA, WX4J, K4SET. Use the same configuration as with K4CJX, except a different callsign. Review the text version of the PMBO Frequency List in AirMail (“View....Frequency List”) to find available PMBO’s with Telnet capability for you.

AirMail – Use (Telnet via internet connection)

- Q4500** **When I hit the “Connect” button nothing happens? Why?**
- A4500 The PMBO station you are trying to connect to may be having trouble with his connection to the internet. Try connecting to another PMBO.
- Q4640** **Is there a maximum number of addressees that can appear in the AirMail “To” line?**
- A4640 See 1630
- Q4660** **Is it possible to view all addresses in the “To” line as I add them to it?**
- A4660 See A1660
- Q4680** **How can I select multiple addresses in the address book?**
- A4680 See A1700
- Q4700** **My Attachment Limit has been set to 20000. I just accessed a PMBO via Telnet, and a message downloaded to me, which contained a 70K photo. Why?**
- A4700 The PMBO logic bypasses the Attachment Limit filter when downloading to a user who is connected directly to the PMBO via Telnet.

AirMail – Peer-to-Peer - Setup

Q5000 What is “Peer-to-Peer”?

A5000 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).

Q5020 How do I set up AirMail to do Peer-to-Peer, using the Packet Client module?

A5020 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 Gateway or PMBO station. If you want to exchange information conversationally, select the Keyboard mode.

Q5040 How do I set up AirMail to do Peer-to-Peer, using the HF Terminal module?

A5040 You need to create a new “System”. Use any name other than “Ham”.

1. Go to View....Station List (Systems will be selected)
2. Select “New”
3. Enter a new system name of your choice.....then Ok
4. Select the NEWSYSTEMNAME.....Settings
5. Enter your Callsign.....then Ok
6. Go to Tools...Options....Settings. Select the tab for your new system. Make sure that the B2F box is checked.

You also need to add the Peer-to-Peer HF stations to which you will be connecting to the NEWSYSTEMNAME system.

1. Go to View....Station List....NEWSYSTEMNAME
2. Select “New”
3. Enter the callsign of the first Peer-to-Peer station.....then OK
- 4 The NEWCALLSIGN will then be Selecting in the Station List
5. Select “Settings”
6. Enter information about this new callsign.....then Ok.
7. Repeat for additional new stations.
8. Close HF Terminal
9. Open HF Terminal

AirMail – Peer-to-Peer - Use

Q5500 I am using Packet Client. How do I connect to a Peer-to-Peer station?

A5500 Select either the Handshake mode or the Keyboard mode. If it will be a direct connection, just enter the station's callsign in the "Connect To" box.

If the connection will be through one or more digipeaters, Nodes, K-Nodes, etc.; See Q3540

Q5510 Is there a way that I can set up my AirMail software to act as a "relay" between two other stations?

A5510 Yes, through making using of the "Tools...Options...Routing" screen. Make a new line entry for each "relay". See the Help files in AirMail 3.3.080 (or later). The messages coming In to your station will be stored in the Transit Box.

Q5520 I connected to another station, using Peer-to-Peer. He sent me 4 messages, but I don't see them in my In box. Why?

A5520 They were probably addresses to someone other than YourCall. Check the Transit Box.

Q5550 I am using pactor (HF Terminal window). How do I connect to a Peer-to-Peer station?

A5550 a. In the Terminal window, select the correct "system" and the callsign of the station you would like to connect (see Q5040).

b. Select either the "Handshake" or "Keyboard" mode of interaction with the other station.

c. Hit the green "Connect" button. After the station answers, the contact should proceed as with connecting to a CMS station, if you are using the "Handshake" mode. If "Keyboard" is being used, you will be the initial "sending" station. Send a CTL O to transfer control to the other station.

If you both are in the "Handshake" mode, messages in the Out Box and the Transit Box will automatically flow to the other station, IF they have been Posted to the other station, and have not been previously sent to that station.

Q5580 Are there any operating advantages from using the "Keyboard" operating method, when connected to another station Peer-to-Peer?

A5580 Not really. The "Keyboard" method is very slow, compared to using the "Handshake" method. Handshake results in a MUCH higher efficient use of a frequency channel, and results in a complete "saved" documentation of the information shared between the two stations. If possible, use a voice channel for Chatting, especially on HF.

Q6000 I have a message Posted for another station. The message will not "Send" automatically. Any suggestions?

A6000 a. The other station should make sure that its "Tools...Options...AutoAnswer" box is checked for "Accept Incoming Connects".

- b. Both stations should be using the Handshake mode.
- c. The message should be Posted to the Receiving station.

Q6100 How do I send a ARRL Radiogram to a NTSD Station?

A6100 NTSD (National Traffic System – Digital) stations are NOT the same as Winlink PMBS 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
Also see Q200.

Paclink AGW – Setup - General

Q7000 I have one of the new Kenwood radios (D700) with a built-in TNC. Will it work with Paclink AGW?

Q7000 Not with the built-in TNC. Read more about the deficiencies of the TNC part of this radio at the SV2AGW web site: <http://www.elcom.gr/sv2agw/hardware.htm> (scroll down the page for it).

The radio (and other models with a built-in TNC) will work fine if used with an external TNC which can be put into the KISS mode.

See <http://home.earthlink.net/~k7bfl/TascoModem.pdf>

The built-in TNC will can also access Winlink via the “Keyboard” method (see Q8000).

It can also access Winlink in a limited manner by using the special APRSLINK method described at: www.winlink.org/aprslink.htm

Q7010 What kind of computer operating system do I need to run Paclink AGW?

A7010 Windows 2000 is the “minimum” operating system. N2QZ is developing a version of Paclink AGW which will work on a Linux operating system.

Q7015 I would like to use my SCS TNC for Paclink AGW. Can I get the TNC into the KISS mode?

A7015 Yes, if you have installed firmware 3.7, or greater. The process is described by N6KZB in the document at: <http://home.earthlink.net/~k7bfl/SCSKiss.pdf>

Q7020 What is a “telnet” connection?

A7020 Telnet is an Internet protocol that allows the user to connect to a remote computer. Paclink AGW has a communications module called the “Telnet Client”. This module enables the Paclink AGW 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.

When setting up a telnet connect with Paclink AGW, If possible, use a PMBO other than K7CJX or KN6KB. Let’s spread the load to other PMBO stations!

Q7030 What is a Tactical Email Address? How do I get one?

A7030 A Tactical Address is something like REDCROSS-22@winlink.org. A tactical address may consist of alpha characters only, or alpha characters, followed by a dash, followed by alphanumeric characters. An address name may not exceed 12 characters (including the -). Valid tactical address examples: MLBShelter, RedCross-123, Police-99A.

More information about Tactical Email Addresses and how to get one are included in the Paclink AGW Installation Instructions at:

[http://www.winlink.org/Presentations/Pamlink AGW%20AGW%20Install.pdf](http://www.winlink.org/Presentations/Pamlink%20AGW%20AGW%20Install.pdf)

or from a file by K4CJX

<http://home.earthlink.net/~k7bfl/TacticalAddresses.pdf>

Q7040 Is a Tactical Address good forever?

A7040 No. It lasts for 400 days after its last use. The Route from the CMS and the Tactical Address via a PMBO lasts 90 days since its last use.

Q7050 I having trouble getting AGWPE to talk to my computer com port. Any suggestions? I am using a serial to USB converter between my computer and the TNC.

A7050 Some serial/usb converters work ok; some don't. Good results have been reported for those brands of Keyspan, Edgeport, IBM and Startech. Many folks are having difficulties with those sold by Belkin.

Only the Keyspan and IBM devices have been tested and listed on the Microsoft Hardware Compatibility List (HCL). Since only *listed* hardware has been tested and found to be substantially compliant, buying unlisted equipment is a gamble at best. When there's approved equipment to be found at competitive prices...I wouldn't touch the unlisted stuff with a ten foot dipole.

Things like COM ports floating (or, being able to be assigned and reserved unchanged by the driver) are symptoms of software that can't get on the approval list because someone wrote cheap drivers.

Q7060 I have the Pamlink AGW and Post Office configured, but I can't seem to be able to connect to ANY Telpac Gateway stations. Help!!!

A7060 See A3020

Q7080 Is the Icom D-Star equipment compatible with Winlink 2000?

A7080 Yes, it can be used with the Pamlink AGW software. See Rick, KN6KB for setup details.

Q7100 I am trying to use my KPC3+ with Pamlink AGW. How can I get it into the KISS mode?

A7100 Using the AGWPE software, on the TNC Setup page under Properties (for the com port being used):

"Tnc Sub Type": XKISS (Checksum)

Under "Tnc Control Commands":

"IniKiss1": XKCH ON

"IniKiss2": INTFACE XKISS

"IniKiss3": RESET

"ExitKiss On Exit": box is Checked

[from KF4BXT]

Paclink AGW – Use (VHF/UHF Packet)

Q7500 **How do I find a working Telpac Gateway in my local area?**

A7500 See A3500

Q7515 **My “Connect Script” times out, with a resulting Dirty Disconnect. How can I fix it?**

A7515 Try shortening your Script lines, such as:

```
C DIGIONE  
CONNECTED  
C DIGITWO  
CONNECTED  
C N1XYZ-10  
CONNECTED
```

Q7530 **Can I do “Peer-to-Peer” communications with Paclink AGW?**

A7530 No, Paclink AGW is only used to exchange messages with either a Telpac Gateway Station or a PMBO with VHF/UHF capabilities.

Q7540 **Can I use Paclink AGW on HF pactor?**

A7540 No, Paclink AGW is not useable on pactor.

Q7560 **It has been a while since I accessed my Winlink account with Paclink AGW. Outlook Express seems to be hanging up. Why?**

A7560 If you use Outlook Express with Paclink make sure you never leave more than 200 e-mail messages under the Paclink account folder Outlook Express will hang when trying to get new messages and never transfer all the messages to the In Box.

Q7580 **How can I get a “Catalog” of Help Files and Worldwide Weather bulletins, which is available with the AirMail software?**

A7580 1. From Paclink AGW and using Outlook, Outlook Express, or whatever you are using with Paclink as a user interface, send a message as follows:

To: INQUIRY@Winlink.org

SUBJECT: REQUEST

In the message body on a new line, type the word, LIST, and nothing else.

2. Send that message to a PMBO directly from Paclink via Telnet, or though VHF Packet to a Telpac node or PMBO. Wait about 1 to 10 minutes. It WON'T work to send a request

over the Internet using normal email. Just through a PMBO using the Winlink system pathways.

3. Either wait until your automatic poling takes place, OR manually connect with Paclink AGW. You will get a 72K text file with all the catalog items. The first column will be the "category" and the second column will be what you request.

Example: Under the WL2K_Help category, you may wish to download the PMBO list. So, you would send a message as you did above, only this time you would put the word PMBO in the Message body. You can download more than one file. Just put each on a separate line.

Paalink AGW – Use (Telnet via internet connection)

Q7700 I can't seem to get a telnet connection to a particular PMBO station. Why?

A7700 The PMBO station you are trying to connect to may be having trouble with his connection to the internet. Try connecting to another PMBO.

Keyboard Access – Setup

Q8000 What is the “Keyboard Access” method all about?

A8000 It enables a user to send and receive messages (without Attachments), using very basic packet or Pactor software. It is VERY SLOW, compared to the normal AirMail and Paclink AGW software “Handshake” protocol. It should only be used on HF Pactor for special situations, such as deleting a very large message before it is downloaded. See Q2540. The method is acceptable for normal use on VHF/UHF packet. Users are STRONGLY encouraged to receive increased communications benefits by upgrading to either AirMail or Paclink AGW.

Data is not compressed, so a casual listener will be able to easily see all of the data being transferred.

If possible, please use either Paclink AGW or AirMail. They are faster, give more features, don't make syntax errors and use up fewer system resources. 99% of all the WL2K system problems are due to keyboard entry and keyboard users make up less than 1 percent of WL2K users.

Q8020 What kind of computer operating system do I need to use Keyboard Access?

A8020 Most any computer and operating system will work. Some folks have used Palm devices.

Keyboard Access – Use

Q8500 How do I find a working Telpac Gateway in my local area?

A8500 See A3500

Q8510 How do I access the Winlink system, using Keyboard Access?

A8510 Connect to a Telpac Gateway Station.

LM List all messages for me.

RM Read all messages for me.

KM Kill (delete) all messages for me.

R xx Read content of message number xx.

K xx Kill message number xx.

SP Send a message (see A8520)

Bye Disconnect

Q8520 How do I send a message, using Keyboard Access?

A8520 SP or SENDPERSONAL <Destination(s)> Send a personal text message to the destination(s) indicated. Destinations may be a Radio callsign (without H-route) known to the WL2K system or "SMTP:<email_address>"

Multiple destinations should be separated by ";" or ","

e.g. SP W4ABC;SMTP:Johndoe@aol.com

Be careful to enter addresses correctly and include the required prefix "SMTP:" in front of any email address.

You will be prompted for a subject of the new message: And then prompted for the message body:

For the message body enter any text. use Cr for multi-line. End with /EX on a separate line. No attachments. Acceptance of the message will be confirmed.

Attachments are not supported by Keyboard Access.

Q8530 I have connected to a Telpac Gateway Station, using Keyboard Access. Nothing is happening on the screen. Why?

A8530 The software does not have many "prompts" to let you know what to do next. You need to take the lead. It will not tell you if there is mail for you unless you type LM.

Q8540 I made a typing error. Apparently the program does not coach me about my errors?

A8540 Your assumption is correct. If you type something and you do not get a response within a minute, assume you made a typing error. Correct the error and try it again. If that does not help, then Disconnect and start over.

The "Keyboard Access" program was meant to be a VERY SIMPLE, intro type program. It is not intended to be a heavy duty message transfer program, like AirMail or Paclink AGW. Programming enhancements to this software should not be expected. However if you programming skills and have time to donate for such a project, contact K4CJX.

If possible, please use either Paclink AGW or AirMail. They are faster, give more features, don't make syntax errors and use up fewer system resources. 99% of all the WL2K system problems are due to keyboard entry and keyboard users make up less than 1 percent of WL2K users.

Q8550 **In my terminal program MyCall has been defined as W6ABC. When I originate and send a message via Winlink, using Keyboard Access, it arrives at the other end as coming from W6ABC-15@winlink.org. Why?**

A8550 You are probably using a packet node to get to a Telpac Gateway station. The node is changing your callsign to W6ABC-15, which is what the Telpac Gateway station sees. This "problem" will not occur if you use AirMail or Paclink AGW. The Winlink system sees W6ABC@winlink.org and W6ABC-15@winlink.org as two unique email addresses.

Telpac Winlink Gateway – Setup

A9000 Just what is a “Telpac Gateway”?

A9000 It is an amateur radio station which provides a communications path between a VHF or UHF packet “Winlink user” and a Winlink “PMBO” Station, which communicates with the Winlink Common Message Server (CMS). The Telpac Gateway does not store any information. It is not a BBS. It is not a Node.

Q9050 What kind of computer operating system do I need to run Telpac?

A9050 Windows 98 is the “minimum” operating system. However more stable operation has been noted when using it with Windows XP.

Q9100 Is there a version of Telpac available for Linux operating systems?

A9100 Yes. DL5DI has a working Telpac Gateway using the Linux operating system. See <http://db0lj.dyndns.org/>

You will find TelPac-Node/LinuX at:
<http://db0lj.dyndns.org/pub/dl5di-soft>

Q9120 I am a casual user of the Winlink system. Do I need to install the Telpac software on my computer?

A9120 No. you only need to install either AirMail or Paclink AGW to send and receive messages. Telpac is for advanced Winlink users, who want to provide something back to the Winlink System; that being a VHF/UHF Gateway for access from local Winlink users.

Q9140 If I decide to install the Telpac software, do I have any obligations to the Winlink system?

A9140 No. You can choose to operate it as many hours a day as you want. 24/7, As Needed, etc.

Q9160 What call letters should I use for my Telpac Gateway station?

A9160 If possible, use a quasi standard of yourcall-10.

Q9180 Are there any frequencies that I should avoid for my Telpac Gateway?

A9180 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.

AirMail and Paclink AGW, if in use, require a very intense use of a channel. They both work best if they are not competing for channel use from other users.

AirMail and Paclink AGW will both work with a digipeater and a node. In order to maximize throughput for all users, all Winlink users of the digipeater should refrain from connecting when another Winlink user (using AirMail or Paclink AGW) is connected.

If possible, stay off of frequencies which have heavy use of DX Clusters.

An ideal community arrangement would be to have multiple Telpac Gateways on different frequencies, using different primary PMBO stations, using different internet service providers, located in diverse parts of the local geographical area.

Q9200 Can I run more than one Telpac Gateway on a single computer?

A9200 Yes, up to ten. See the Telpac Installation Instructions.....Multiple Instances.
http://www.winlink.org/Presentations/TELPAC_Install.pdf

Q9220 It is possible to install the Telpac software on a laptop and use it to run a Telpac Gateway “portable station”.

A9220 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 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.

Q9260 I need to change some of the station description information about my Telpac Gateway, which was given when I originally registered the station. How do I change the information?

A9260 Go to www.winlink.orgWinlink Stations...Network Status of Winlink Gateways in Real-time. In the upper right-hand corner.....select “Telpac Gateways”.

From this new table of all registered Telpac Gateway stations, edit the data for your station. The new data goes in the right-hand column.

Q9300 Are there any guidelines for which PMBO stations to use as my telnet link to the Common Message Servers?

A9300 K4CJX and KN6KB get a lot of use. It may be better to choose another station as your Primary. If your three selections are located in geographical diverse areas, you might increase your reliability in case of outages due to adverse weather, electrical outages, etc.

See if your PMBO has a telnet link from the AirMail Message Index....View...Frequency List...Text.

Q9320 My Telpac software is running 24/7 and seems to “go to sleep”, with an associated shutdown of the software. Any suggestions on a solution?

A9320 It may be caused by the “Power Management” switch on your serial or usb connection going into a sleep mode (independent of the “Power Options via the Control Panel).

The serial and usb Power Management switches can be turned off via

Control Panel....System....Hardware....Device Manager....Universal Serial Bus
Controllers....USB Root Hub....Properties....Power Management.

Q9350

I am using a KPC3+ as my TNC, with the “direct” Telpac software option. Our local node operator says that my Telpac Gateway is sending out a beacon with a call alias of DISABL, which messes up the Node Table on the Node. How do I get that turned off?

[info from KB5WBH and KG4VUB]

The beacon comes from the setting for NETCALL.

The default factory value is lowercase "disabled" >> NETCALL disabled <<

When Telpac initializes and reads the original TNC settings, it saves that setting in the registry as "disabled" . If you select "restore TNC settings on exit" in the Telpac settings, then Telpac will issue the cmd "NETCALL DISABLED" when you close the program (along with restoring all the other saved settings.)

The TNC sees the value "DISABLED" for the NETCALL cmd and sets that value, thinking its a node alias. This turns on the NET feature in the TNC and results in the automatic beacon DISABL . I guess it only holds 6 chars for the alias.

According to a phone call with Kantronics, the only way to turn it off is with a hard reset.
cmd: restore -d

In Telpac just make sure "restore TNC settings on exit" is unchecked.

We have Telpac running with AGW now so that took care of the problem, plus it lets us use AGW Term for keyboarding on the same radio/tnc as the Telpac node.

Q9360

I am using a KPC3+ as my TNC, with the “direct” Telpac software option. When I start Telpac, it hangs up, just after the first item of the aps file, "8bitcon ON", There is no response from the TNC, it just freezes. Telpac has to be shut-down by CTL-ALT-Delete. I have tried a different KPC3+, a different aps file, and reinstalled Telpac. How can this be corrected?

A9360

This problem has been solved by installing “Port Monitor” software on your computer.

Q9370

I have an Iridium SatPhone. How can I use it with Telpac?

A9370

Winlink 2000 Telnet (Internet Access) Set-up Instructions with Airmail for Iridium SatPhone users (from K4CJX):

Winlink Access via Iridium SatPhone/Telnet

This document describes how to set up an Iridium PPP connection for use with the Winlink Telnet module, and is a modified version of a non-copyrighted Iridium document entitled PPP DATA Installation/Configuration.

Prior to using your Iridium phone as a modem for PPP Data, you need to do the following two things:

1. Install a Standard 19200 bps modem driver on your computer (instructions below). 2. Set up and configure a dial-up networking connection for the PPP service (below).

The modem driver must be configured with the following Extra Initialization String: AT+CBST=71,0,1. In the dial-up networking connection, TCP/IP should be the only enabled network protocol. You must have an available serial port on your computer (e.g., COM1). You must have Administrator privileges if using Windows NT, 2000 or XP Professional. Horizontal rule. Windows XP Setup (others similar).

Step 1: Install the Modem Driver

- a. close all applications
- b. choose Start > Control Panel
- c. double-click on Phone and Modem Options
- d. select the Modems tab and click Add...
- e. check Don't Detect My Modem; I will Select It from a List; then click Next
- f. click Standard 19200 bps Modem; then click Next
- g. click the Selected Ports button and click on an available COM Port (e.g., COM1)--this is the port to which you will connect your Iridium phone; click Next, then Finish
- h. click the Standard 19200 bps Modem to highlight it and then click Properties
- i. select the Advanced tab
- j. in the Extra Initialization Commands box, enter: AT+CBST=71,0,1 11; click OK, then OK again to close.

Step 2: Configure Dial-Up Networking

- a. choose Start > All Programs > Accessories > Communications > Network Connections
- b. click Create a New Connection, and click Next
- c. select Connect to the Internet and click Next
- d. select Set Up My Connection Manually and click Next
- e. select Connect Using a Dial-up Modem and click Next
- f. if a Select a Device window appears, check the box next to Standard 19200 bps Modem, and uncheck all other devices; then click Next

- g. enter a connection name (e.g., Iridium PPP) and click Next
- h. in the Phone Number box, enter 008816000023 and click Next
- i. a username and password are not necessary, but will keep Windows from asking each time you dial
- j. click Next, then Finish
- h. click Properties for the new dial-up connection, then the Networking tab
- i. make sure Internet Protocol (TCP/IP) is checked; uncheck all other components
- j. click OK, then close the connection box.

For use with Airmail's Telnet window, the simplest way to make the connection is to check the Dial First box in the Telnet window, then select the Iridium PPP connection. Don't forget to check the Hang up box.

First go to Airmail's Tools/Options menu, Modules tab, and check the box to the left of Telnet Client. Click OK. Then go to the Modules menu and select Telnet Client. This opens the Telnet window, very much like the Terminal window except it operates over an Internet connection. Click NEW and enter the following parameters:

(As example)

Remote callsign: K4SET
Remote host: k4set.no-ip.com
Port: 12001
Local callsign: Set to your ham callsign
Password: WL2KTELNCLIENT

Click OK to save settings.

To check mail, go to Airmail's Modules/Telnet menu, make sure K4CJX is selected in the call sign box, and click the green Connect button. Airmail will dial the phone, contact the server, exchange mail and hang up.

Note: To make use of the Dial First feature, you need Airmail version 3.1.948 or later. Point your browser to: <http://siriuscyber.net/update> and download amup948.exe to a Downloads folder. Make sure Airmail is closed, then open that file and install it into the same C:\Program Files\Airmail folder.

If you want to place a PPP Data call manually, you must open the Dial-Up Networking window and select the dial-up connection you created for your Iridium phone. Make sure the phone is set up, then open the Iridium PPP dial-up connection and click Dial. Don't forget to disconnect when you are finished!

Telpac Winlink Gateway – Use

Q9500 Do you have some suggestions on how to maximize the throughput of a Telpac Winlink Gateway when it has multiple “simultaneous” users?

A9500 When using Telpac Gateways WITHOUT using a digipeater or node:

We advise hams to take a moderately aggressive approach to setting packet parameters, both users and gateway stations. We also advise users to listen before they transmit, pass their traffic and get off for the next guy, believing that to be more efficient than when several stations share airtime. The Telpac Gateways in our area are advised to set Maxframes at 4-6. This is to allow multiple packets to be acknowledged at once, rather than adding an Ack for each packet or two. Less channel overhead.

When using Telpac Gateways WITH using a digipeater or node:

Same as above, but reduce the MAXFRAME value to 1 or 2.

Q9520 I have been getting intermittent “hang-ups” from Telpac, with multiple users. I have reviewed all of the literature, but can’t solve the problem. What should I do next?

A9520 Save the Telpac Log of events prior and during the incidents. Send the Log to KN6KB.

Q9540 I have a Telpac Gateway Station up and running. I can’t seem to figure out how to “monitor” or audit the content of the messages, due to the compression of each message; in order to comply with FCC Rules. Or has that duty been delegated to someone else in the Winlink organization that is able to see the actual words?

A9540 No. - §97.219(c) provides protection for licensees operating as part of a message forwarding system. "...the control operators of forwarding stations that retransmit inadvertently communications that violate the rules in this Part are not accountable for the violative communications. They are, however, responsible for discontinuing such communications once they become aware of their presence.

[Telpac Gateways in non-USA countries are bound by the rules and regulations of their country]

Q9550 A User of my Telpac Gateway Station timed out during a session. He was downloading a large message. Why did that happen?

A9550 It probably happened because the “Connection Timeout” number in your Telpac Setup refers to the time between interactions of your Telpac Station and the PMBO station you are using. In this case the entire message was moved from the PMBO to your Telpac Gateway very quickly. Then the process of moving the message to your User began. During that process your Telpac Gateway had no interaction with the PMBO; hence the timeout.

Your User can obtain the entire message by doing additional connections. Or, you can increase the Connection Timeout value.