



# Winlink Users Guide

Version 1.0



Affiliated Club



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## WINLINK 2000 – AN OVERVIEW

### Description

The Winlink 2000 Network is a worldwide radio messaging system that combines internet technology and amateur radio frequencies. The system is used to disseminate email (with attachments), position reporting, weather bulletins, emergency communications, and message relay. Winlink is a project of the Amateur Radio Foundation, Inc. (ARSFI) and is comprised of several central message servers worldwide.

### HF Operations

Although not covered in this manual, Winlink can be combined with high frequency (HF) via a single sideband (SSB) transceiver by using modem technologies such as PACTOR, Winmor, and Automatic Link Establishment (ALE). Organizations such as MARS utilize the HF component of Winlink extensively in their tactical operations.

### Local Infrastructure & Projects

The DFW Ham Radio Interoperability Group <http://www.dfwhrig.org/> submitted recommendations on January 12, 2012 at a meeting at the Joint Emergency Operations Center (JEOC) in Fort Worth to further expand Winlink infrastructure in Tarrant County in order to support emergency communications (EMCOMM). Tarrant County Public Health Emergency Preparedness (TCPH/PHP) volunteered to lead the infrastructure implementation since they had vested interest in utilizing Winlink to support POD and shelter operations.

TCPH/PHP obtained UASI funding to purchase equipment to install 12 Winlink gateway stations by the end of 2013 in order to provide adequate coverage for Tarrant County. To date, there are 8 gateways that are operational.

## WINLINK EQUIPMENT COMPONENT OVERVIEW

Radio Transceiver – Basic Winlink operations will utilize a basic dual band or 2m transceiver equipped with power supply and vertical antenna.

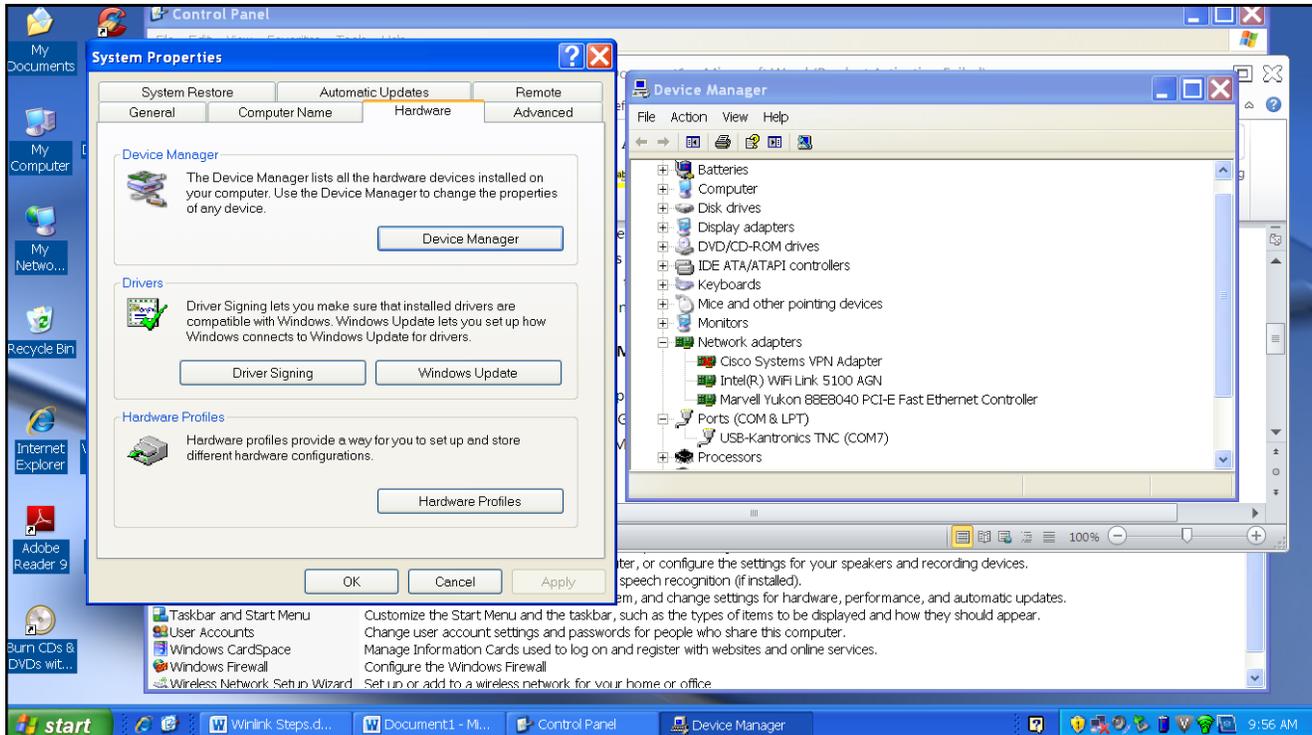
Terminal Node Controller (TNC) – A modem is required to modulate analog carrier signals to encode digital information through radio frequencies. Therefore, the TNC will interface with the transceiver and the computer.

Computer – A very modest computer can be utilized for Winlink (Windows XP or Version 7 will do fine); minimum memory: 512 kb.

Software— RMS Express is the recommended software. This is free to download from [www.winlink.org](http://www.winlink.org)

## DETERMINING THE COM PORT

1. Find the serial port that the TNC is using. Go to start, settings, and control panel.
2. Select System. Go to hardware, select device manager.
3. Find Ports (COM & LPT). Click on (+) to expand the list. In this example the USB-Kantronics TNC is attached to the computer. Look for USB Kantronics TNC (COM7). Make a note of this COM Port.
4. Close Device Manager, Control Panel, and System Properties windows.



## SOFTWARE SET UP

1. Download RMS Express from [www.winlink.org](http://www.winlink.org).
2. Click on RMS Express Setup and follow the install instructions.

### FTP directory /User%20Programs/ at autoupdate.winlink.org

To view this FTP site in Windows Explorer: press Alt, click View, and then click **Open FTP Site in Windows Explorer**.

[Up to higher level directory](#)

|                    |            |  |
|--------------------|------------|--|
| 07/25/2012 12:00AM | 3,233,022  | <a href="#">itshfbc_120722.zip</a>                                 |
| 10/10/2012 12:00AM | 1,723,540  | <a href="#">Paclink_setup_4-3-4-0.zip</a>                          |
| 06/29/2011 12:00AM | 1,111      | <a href="#">README_Install_Instructions.txt</a>                    |
| 05/06/2013 12:00AM | 7,524,427  | <a href="#">RMSMessageLog_setup_1-9-0.zip</a>                      |
| 09/10/2013 09:38AM | 10,267,928 | <a href="#">RMS_Express_setup_1-2-14-0.zip</a>                     |
| 05/13/2012 12:00AM | 12,176     | <a href="#">SCS_PTC-IIIusb_and_end_of_PTC-IIusb_IIpro_IIex.pdf</a> |
| 06/23/2012 12:00AM | 3,483,544  | <a href="#">V4Chat_1.0.4.0_Full_Install.zip</a>                    |
| 09/07/2011 12:00AM | 200,155    | <a href="#">WINMOR_TNC_1.4.0.0.zip</a>                             |

3. Double click on the RMS Express Icon and RMS Express Properties window will open.



RMS Express

4. Enter your call in the “My Callsign” box.
5. Enter your grid in the “My Grid Square” box.  
To find your grid square, Click on [Find my Grid Square](#) and enter your local data.
6. Click update. This will only have to be done the first time you start the software.

RMS Express Properties

Call Signs

My Callsign: W5EUL      Optional auxiliary callsigns

My shortened callsign:      Aux Call 1:

Add call sign suffix if required (optional):      Aux Call 2:

My Grid Square: EM12KU      Lat/Lon to Grid Square

My Password (optional):      Use Secure Login

NOTE: A password is required only if you use secure login.

Winmor registration key (optional):

Display list of pending incoming messages prior to download

Warn about connections to stations holding messages

Disable Peer-To-Peer Message Transfer

Path to propagation forecast program: C:\itshfbc\

Service Codes

PUBLIC

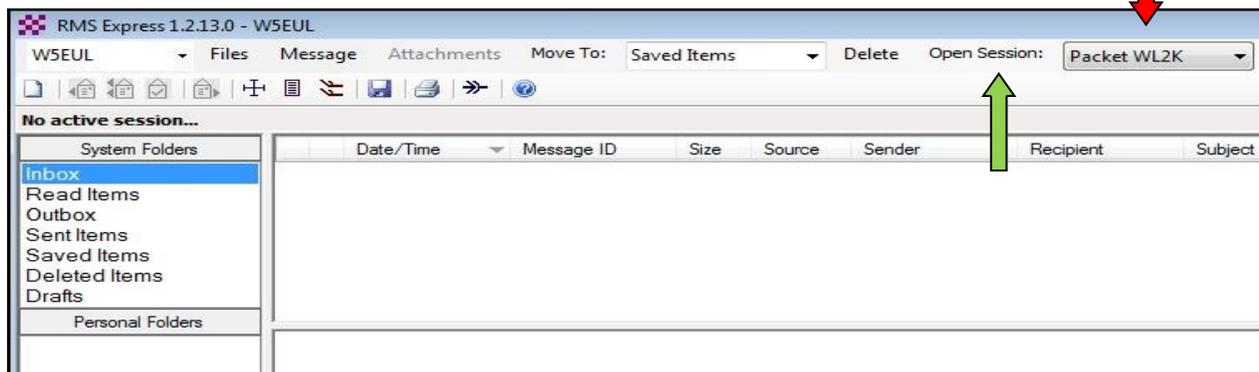
(Use PUBLIC for ham call signs. Separate multiple service codes by spaces.)  
If you change service codes, you must update the list of channels.

Recalculate HF path quality if SFI changes more than: 25

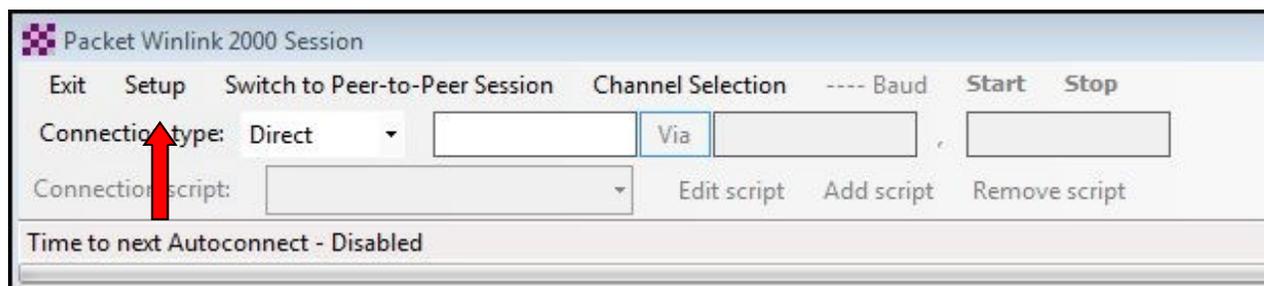
Keep logs for 2 weeks

Update      Cancel      Remove call sign

- Select "Packet WL2K" from the drop down list.
- Click on "Open Session".



- Click on "Set Up". The "Packet WL2K/P@P Setup" box will appear.

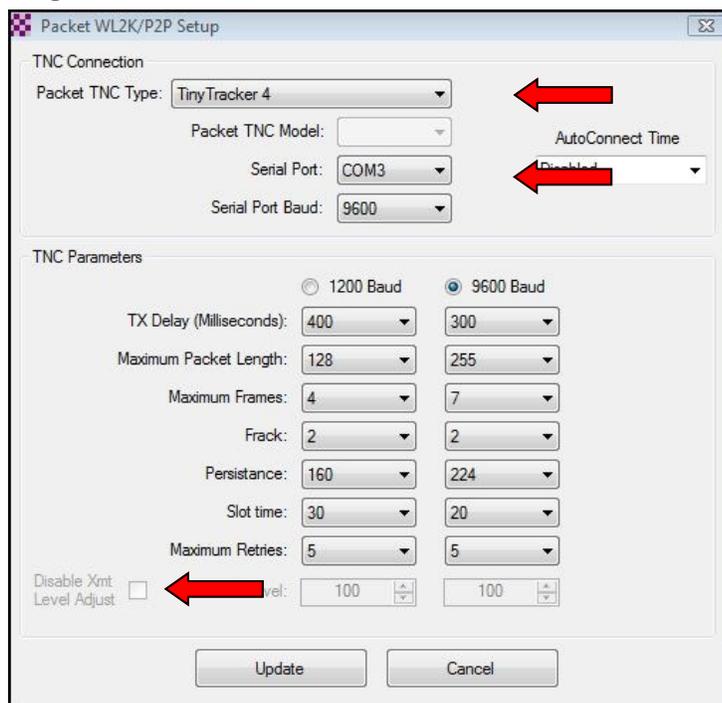


- Select your TNC from the "Packet TNC Type" drop down.

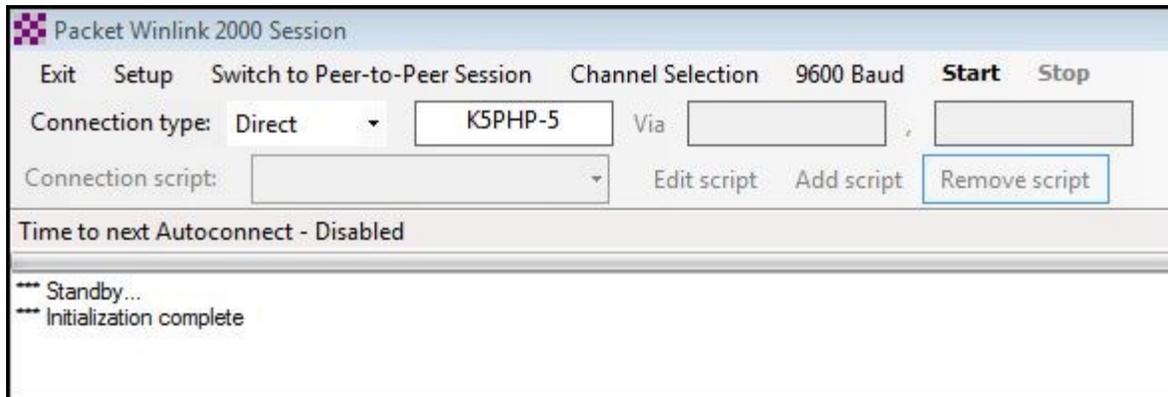
Select your COM port from the "Serial Port" drop down.

If available, check the "Disable Xmt Level Adjust" box.

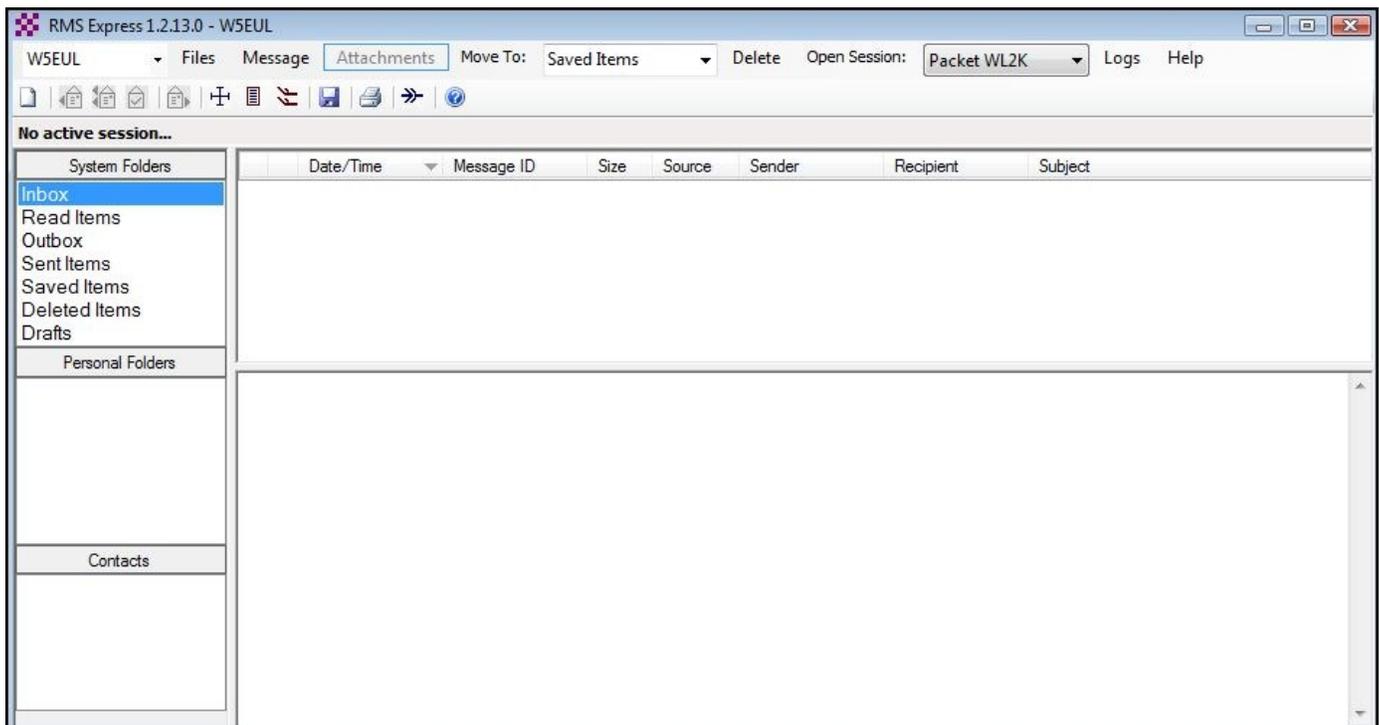
Click Update.



11. From the “Packet Winlink 2000 Session” window, enter the callsign of the eye gate nearest your location. See appendix for the Tarrant County eye gate list.

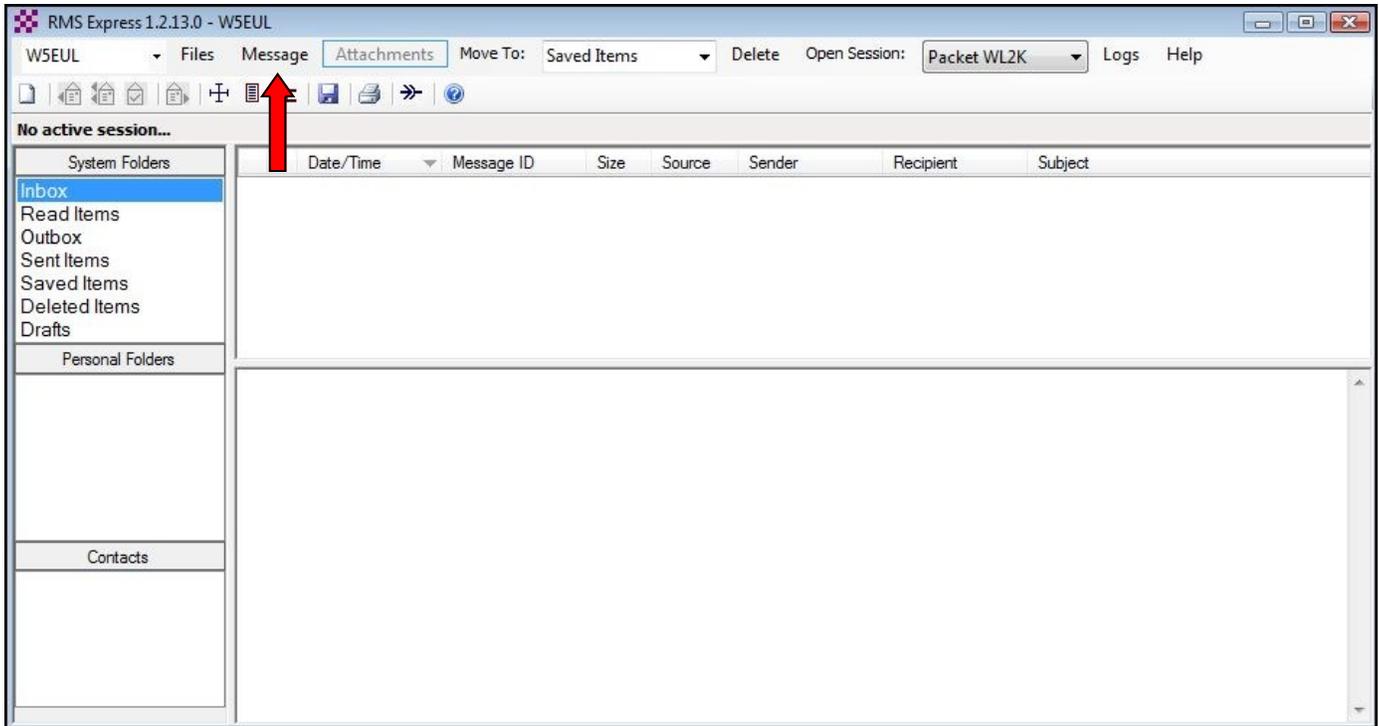


12. Close the “Packet Winlink 2000 Session” window and leave the main RMS Express window open.

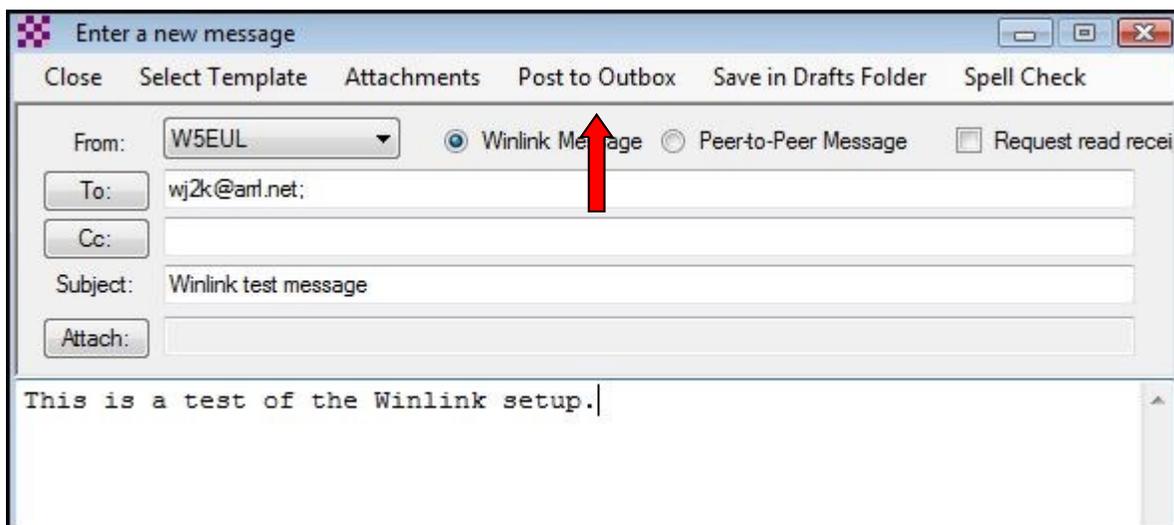


## SENDING MESSAGES

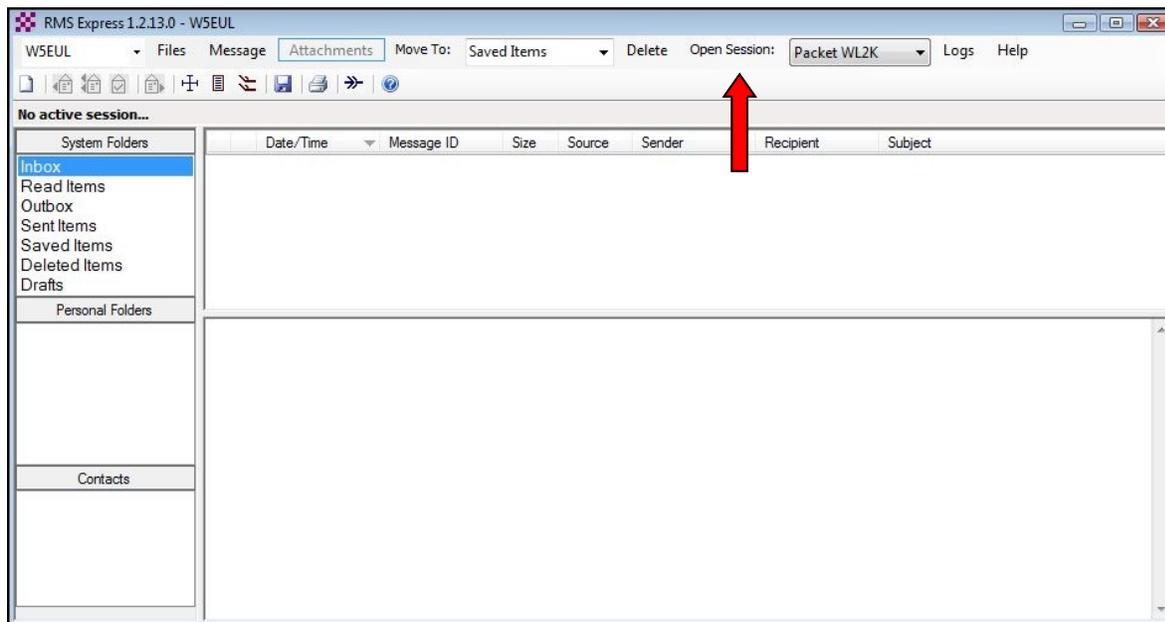
1. Click “Message” and select “New Message. This window is similar most email systems.



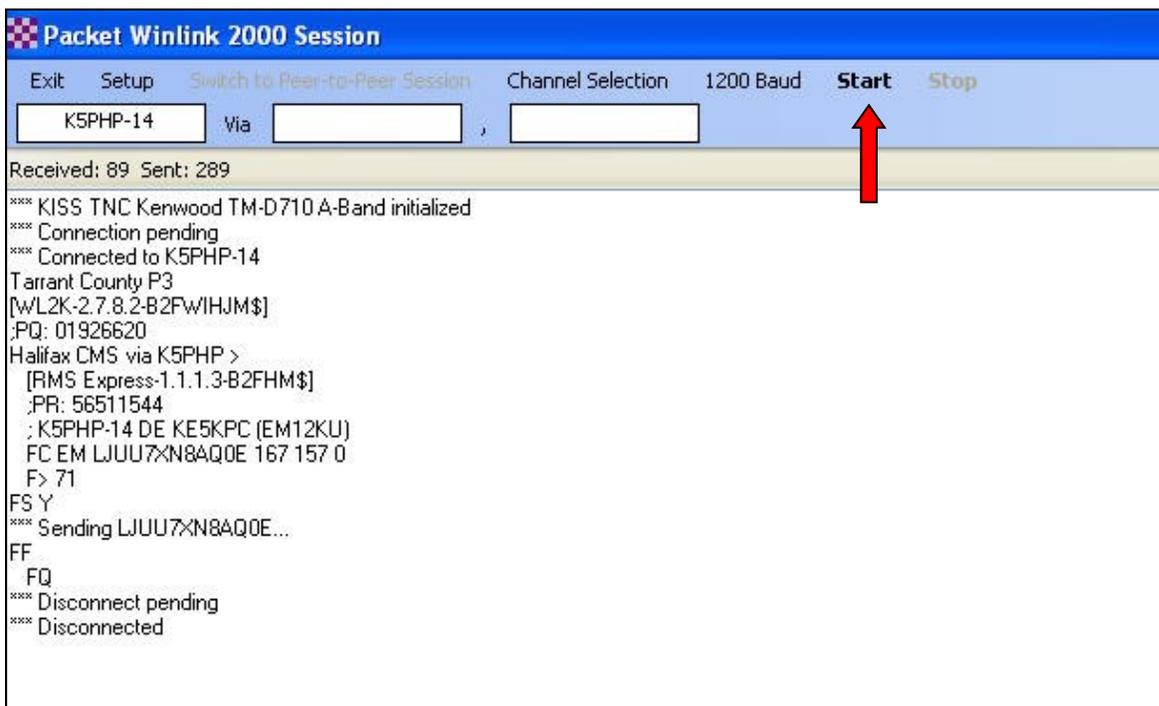
2. Fill your “To:” address, “Subject” and your email message.
3. When you have completed your message, “Click on “Post to Outbox””.



2. Click “Open Session”.



3. Click on the “Start” button in the “Packet Winlink 2000” session box. You should see data activity in the Winlink session box and hear a brief modem transmission sound through the radio transceiver.



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## TARRANT COUNTY WINLINK EYE GATES

| Call sign | Frequency | Baud Rate | Grid Square |
|-----------|-----------|-----------|-------------|
| K5PHP-2   | 144.930   | 1200      | EM12GT      |
| K5PHP-3   | 144.910   | 1200      | EM12IR      |
| K5PHP-4   | 144.990   | 1200      | EM12GR      |
| K5PHP-5   | 144.950   | 1200      | EM12KU      |
| K5PHP-8   | 144.990   | 1200      | EM12HP      |
| K5PHP-9   | 145.090   | 1200      | EM12IQ      |
| K5PHP-11  | 144.970   | 1200      | EM12LR      |
| K5PHP-12  | 145.010   | 1200      | EM12IT      |
| K5PHP-13  | 145.050   | 1200      | EM12JP      |
| K5PHP-14  | 144.030   | 1200      | EM12JV      |



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