



Montgomery County Texas

ARES

Packet Check Ins

This document explains one way to check in to the weekly Montgomery County Texas ARES net using packet radio. This is not intended to be a comprehensive explanation of packet radio, nor is it represented to be the only way to achieve packet check in capability. There are numerous software packages available for packet radio, but for the sake of simplicity, this document only discusses two such programs.

Assumptions

It's assumed you have a TNC connected to your VHF radio, or you have a radio with a USB connection and a built-in sound card.

A Brief Discussion Regarding TNC's

This document is primarily concerned with software/radio operation for digital packet check-in's to WA5EOC-1. TNC's (Terminal Node Controllers) implement the hardware interface between your radio and your computer. TNC functionality ranges from the simple basics which includes, as minimum, transmit audio, receive audio, and PTT (push-to-talk) operation. An example of a basic TNC is the digirig mobile or the SignaLink USB. More advanced TNC's can also function as a BBS (Bulletin Board Server) with message forwarding, a Personal Mail Box, a Digipeater, a network node, a remote controller, and more. An example of an advanced full featured TNC is a Kantronix model KPC-3+. There are other TNC's available, but those mentioned above appear to be the most popular. The more fully featured TNC's are, of course, considerably more expensive than the "basic" TNC's.

Due to the variety of TNC's available, and the number of radios they may interface with, this subject is too broad and deep to cover in just one document. The interface cables to the radio may not be commercially available, and may need to be fabricated by the amateur radio operator.

For the reasons noted above, TNC's are not discussed in detail in this document.

Program Downloads

Note that multiple programs are available for amateur radio packet communications.¹ The two programs discussed in this document are “Soundmodem” and “Easyterm” from amateur radio operator UZ7HO. Both programs are free to download and use. These two programs work together to achieve packet radio capability. They can be downloaded from the following link:

<http://uz7.ho.ua/packetradio.htm>

Note! This is not a secure website!

Download the following two files:

[soundmodem114.zip](#)

and

[easyterm49.zip](#)

Navigate to your downloads directory and right-click on the downloaded zip files and select “Extract All...”

You can locate these folders anywhere you want. Wherever you choose to store them, you can create a desktop shortcut as follows:

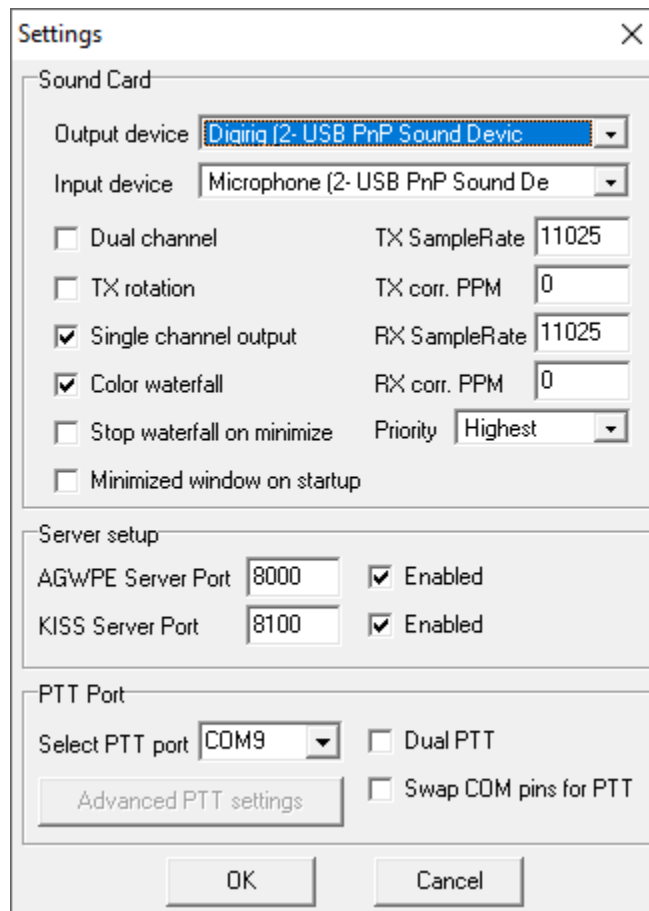
Open the “soundmodem114” folder and right-click on “soundmodem.exe”, then select “Send to >”, then select “Desktop (create shortcut)”.

Open the “easyterm49” folder and right-click on “Term.exe”, then select “Desktop (create shortcut)”.

¹ Two such programs are “Outpost”, “Airmail”, and “BPQ32”.

Program Setup – SoundModem

Start soundmodem.exe. From the menu bar select “Settings”, then “Devices”. You will see a pop-up window similar to this...



The only settings requiring adjustment are “Output device”, “Input device” and “PTT Port”.

Select your TNC or built-in sound card driver in the “Output device” and “Input device” drop down menus.

In “Server setup” ensure that both AGWPE and KISS are checked as enabled with the port numbers shown.

Select the com port for your TNC or your radio’s internal sound card. Ensure that you’ve entered the correct com port by checking your computer’s device manager!

The remaining default settings should be sufficient to get started.

Program Setup – EasyTerm

Start Term.exe. From the menu bar select “Settings”, then “Station Setup”. You will see a pop-up window similar to this...

The screenshot shows a "Station Setup" dialog box with the following fields and values:

- Terminal Callsign: AJ5TX
- Mailbox Callsign: (empty)
- Beacon Setup section:
 - Destination: BEACON
 - Digipeaters: (empty)
 - Interval: 10 Min. (Info in beacon.txt)
 - Ports: 1 (Separated with comma)
- TNC Setup section:
 - Host: 127.0.0.1
 - Port: 8000
 - Paclen: 80

Buttons: OK, Cancel

Enter your Callsign in the “Terminal Callsign” field.

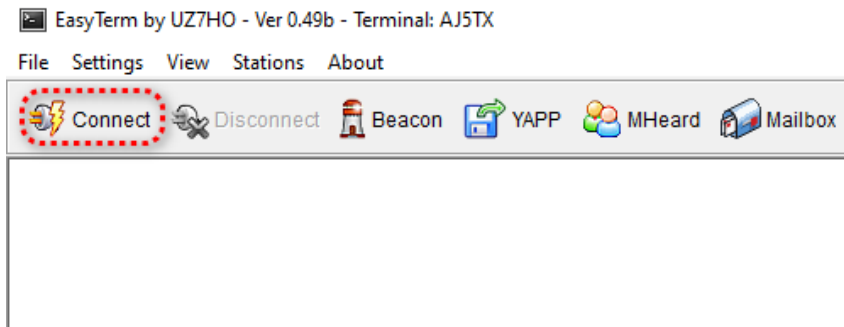
The remaining default settings should be sufficient to get started.

Connecting to WA5EOC-1

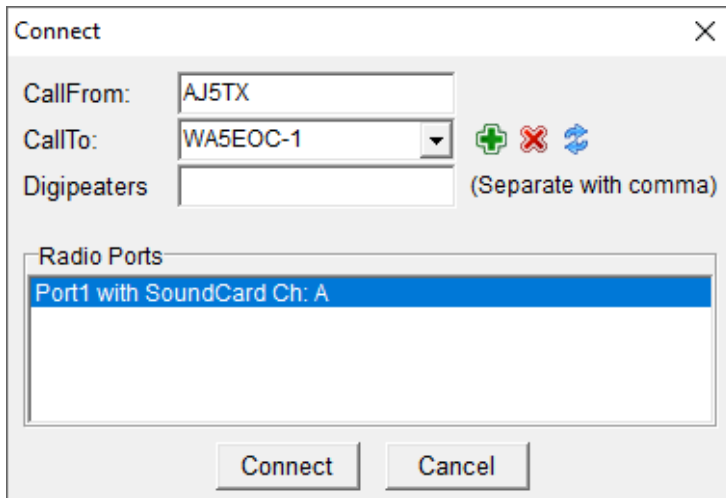
Verify that your VHF radio VFO is set to 145.03000 MHz simplex (no CTCSS/PL tones required).

Start soundmodem.exe and Term.exe.

In EasyTerm, click on the “Connect” button...



You should see a pop-up window similar to this...



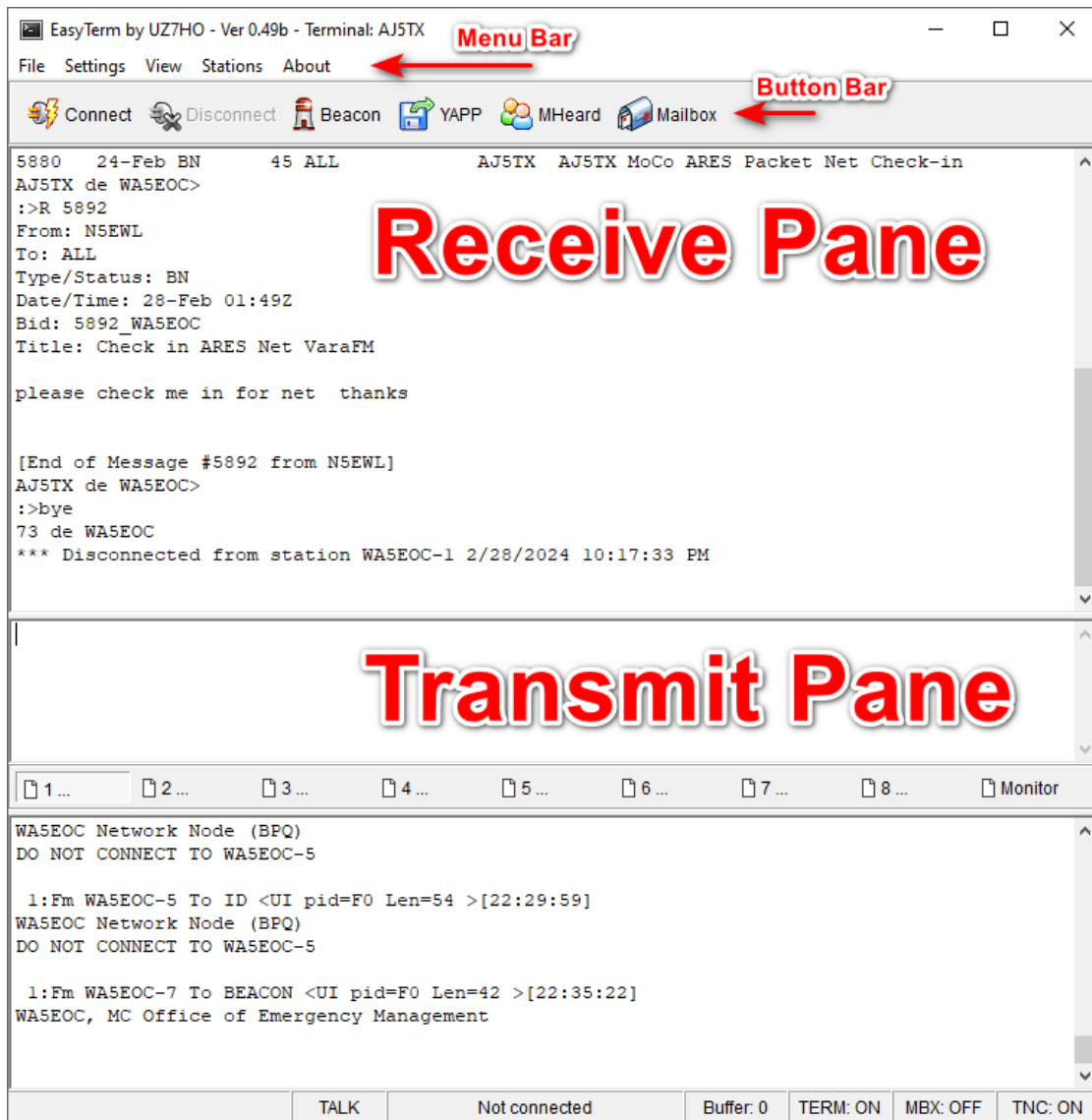
Your call sign should be populated in the “CallFrom” field, from entering it in setup.

Enter “WA5EOC-1” in the “CallTo” field.

Enter “Port1 with SoundCard Ch: A” in the “Radio Ports” field.

Click on “Connect”.

The parts of the EasyTerm window are shown below:



The Receive Pane displays messages and text received from WA5EOC-1. The Transmit Pane is where you enter your text and/or commands to be transmitted to WA5EOC-1. Note that text/commands are not transmitted until you press the “Enter” key on your keyboard.

To see all bulletins addressed to “All”, enter “LB”. You will receive a response similar to this...

```
*** Connected to station WA5EOC-1 2/23/2024 9:15:49 PM
[BPQ-6.0.24.1-B2FWIHJM$]
Hello AJ5TX, Latest Message is 5879, Last listed is 5790. 8 Active Messages. Type H for help.
You have 0 new messages...AJ5TX de WA5EOC>
:>LB
5879 21-Feb BN      54 ALL           KGSYUN Weekly Net Check-in
5878 21-Feb BN      38 ALL           W5MAX  MoCo ARES Packet Net
5877 21-Feb BN      61 ALL           NSKWN  Net Checkin
5876 21-Feb BN      46 ALL           KD5MRS Tuesday Night Net Check-In
5875 20-Feb BN     120 ALL          KJ5AXO ARES Weekly Net Check-In
5874 20-Feb BN      78 ALL           N5EWL  Check in for tonites ARES Net
5873 20-Feb BN      61 ALL           @WA5EOC WW5TOM MCARES Net Packet Check In
5872 20-Feb BN      64 ALL           NW5R   Net Check In
AJ5TX de WA5EOC>
```

To check in to the weekly ARES net, you will send a bulletin to “All”.

Enter “SB ALL”

WA5EOC will respond with:

```
AJ5TX de WA5EOC>
:>SB ALL
Enter Title (only):
```

Enter the Title (subject) of your bulletin, such as “<Your Callsign> MoCo ARES Packet Net Check-in”.

WA5EOC will respond with:

```
Enter Title (only):
:>AJ5TX MoCo ARES Packet Net Check-in
Enter Message Text (end with /ex or ctrl/z)
```

Enter your message. For example, “Max, please check me into the net. Thanks.”

```
Enter Message Text (end with /ex or ctrl/z)
:>Max, please check me into the net. Thanks.
```

Type “/ex” then press Enter or press “ctrl/z” to terminate message entry, **AFTER** you have pressed “Enter” to send the last line of your message. WA5EOC will respond with something similar to this:


```
Enter Message Text (end with /ex or ctrl/z)
:>Max, please check me into the net. Thanks.
:>/ex
Message: 5880 Bid: 5880_WA5EOC Size: 45
AJ5TX de WA5EOC>
```

This shows the message number and the number of bytes.

Finally, ***be sure to “disconnect”*** by entering “BYE”.

WA5EOC will respond with something similar to this:

```
AJ5TX de WA5EOC>
:>BYE
73 de WA5EOC
*** Disconnected from station WA5EOC-1 2/23/2024 9:34:36 PM
```

That’s it! You’ve just checked in to the Montgomery County Texas ARES via packet radio.

Please address corrections, suggestions, comments, and questions to:

AJ5TX@arrl.net.