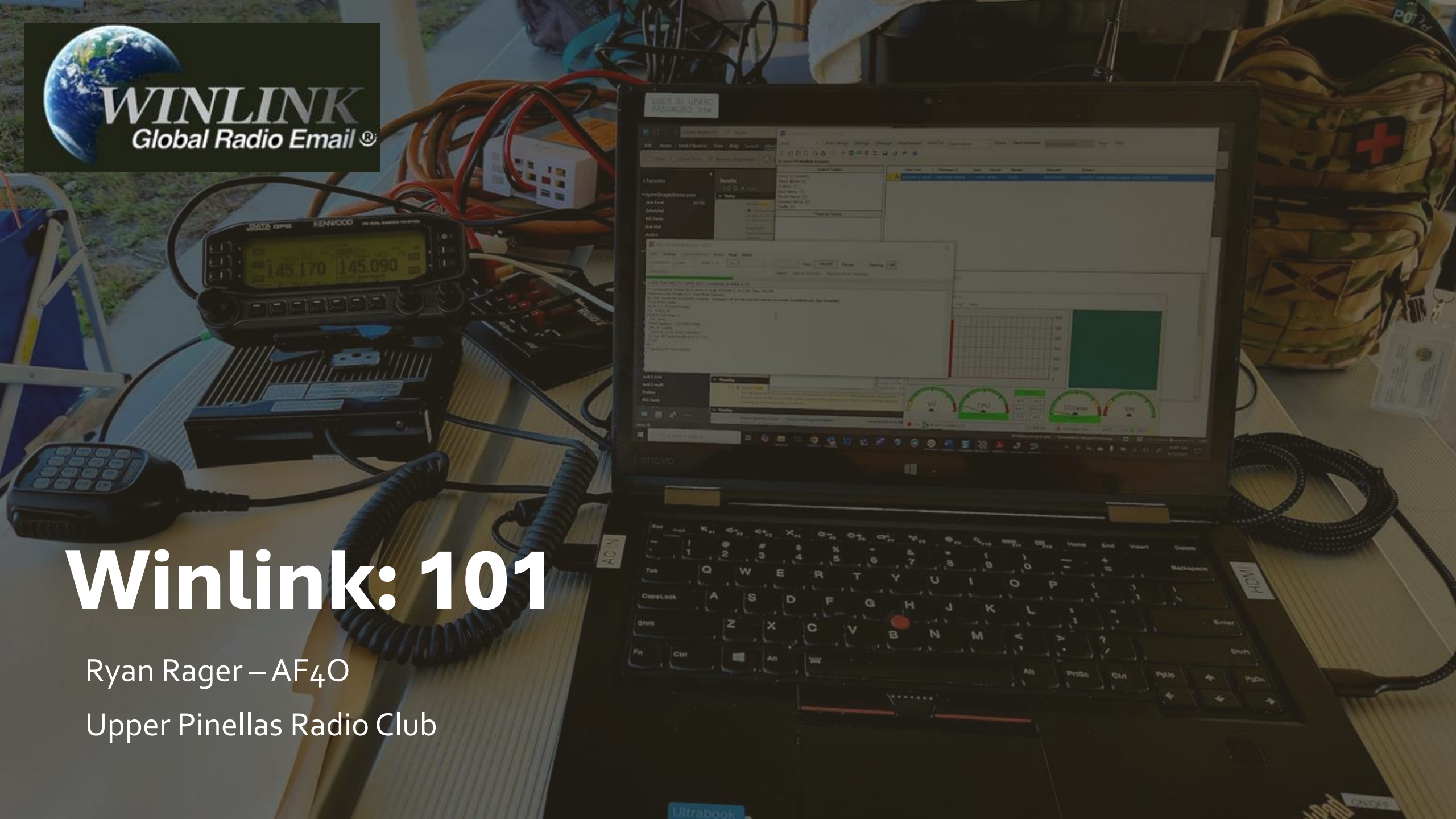# Winlink: 101

Ryan Rager – AF4O

Upper Pinellas Radio Club

Agenda

What is this session going to be about, and not going to be about?

What is Winlink and why should I care?

What are the core components to the entire Winlink system?

How do I get started with setting up for Winlink?

How do I do the initial setup of the Winlink Express app?

What are some additional resources I can look into about Winlink?

Scope of this presentation

This presentation will be about the basics to get you started working with Winlink.

We will not be going into any dedicated radio and gear configuration details

What is Winlink & why should I care?

Most common use case:

- Emergency communications

- The 'gold standard' for passing message traffic and forms during emergency incidents

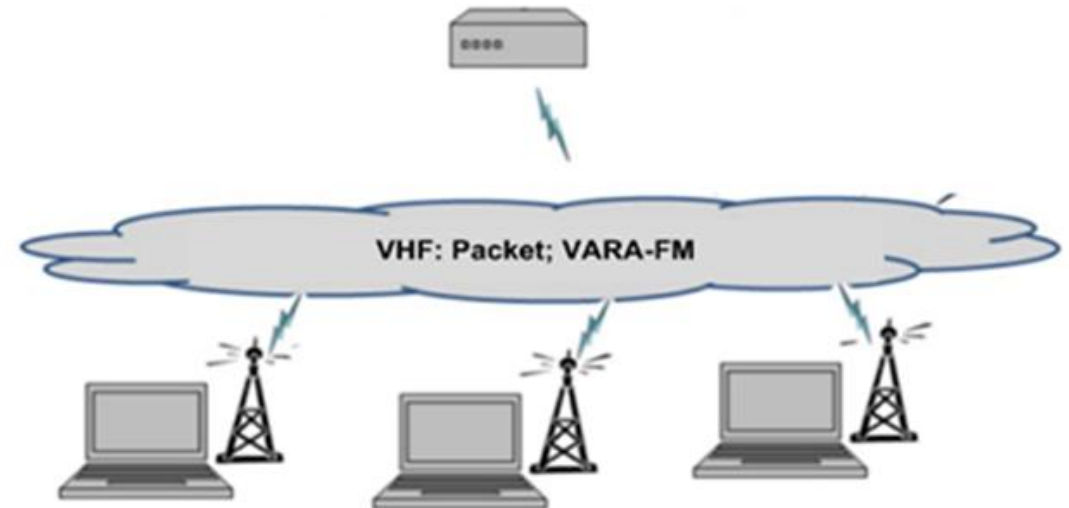**Other functions of Winlink:**

- Periodic position reports (SAR, etc.)

- POTA Spotting without cell coverage

- Sailors at sea use to get weather reports as GRIB files

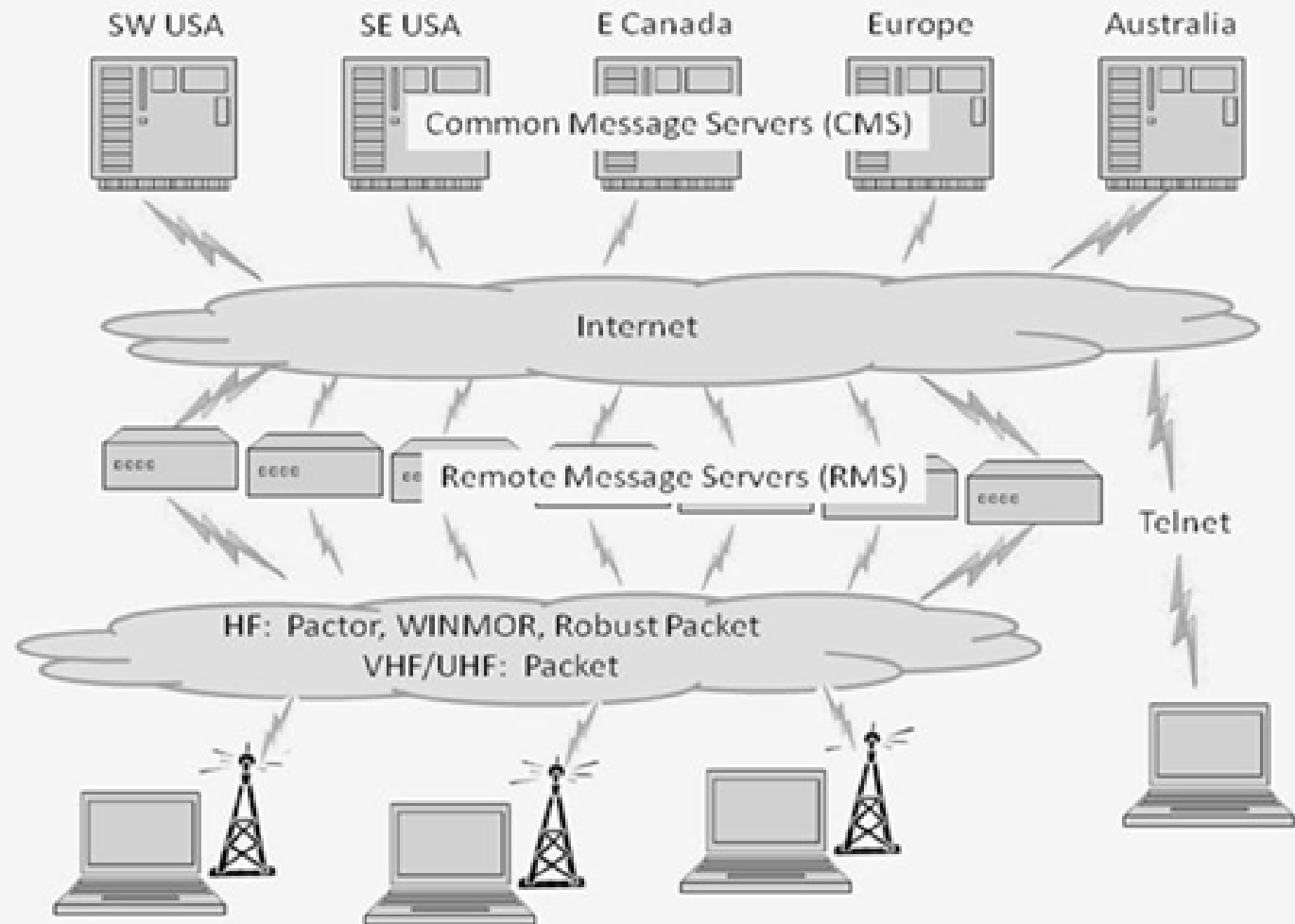# What are the core components to the entire Winlink system?

The "front end" systems

SW USA   SE USA   E Canada   Europe   Australia

Common Message Servers (CMS)

RMS
(Gateway)

VHF: Packet; VARA-FM

Client (You)

HF: Pactor, WINMOR, Robust Packet
VHF/UHF: Packet

Telnet

What are the core components to the entire Winlink system?

The "back end" systems

How do I get started using the Winlink system?

(1 of 2)

- **Hardware**
  - Laptop/Desktop running Windows 10/11
  - No current MacOS solution; community requests have been made for this
  - Some one-off Linux based solutions, but almost no support for those

- **Software**
  - Winlink Express app
  - "modem" interface
    - VARA FM or VARA HF
    - Packet via TNC

- **Winlink Account**
  - Requires a technician license or higher

How do I get started using the Winlink system?

(2 of 2)

- **HF or VHF/UHF Radio with interface device**
  - *SignaLink device*
  - *RIGBlaster device*
  - *SoundModem by UZ7HO (app installs on PC and acts as the TNC)*
  - *Kantronics KPC 3+ TNC modem*
  - **Digi-Rig device (digirig.net)**
  - **DRA device (masterscommunications.com)**
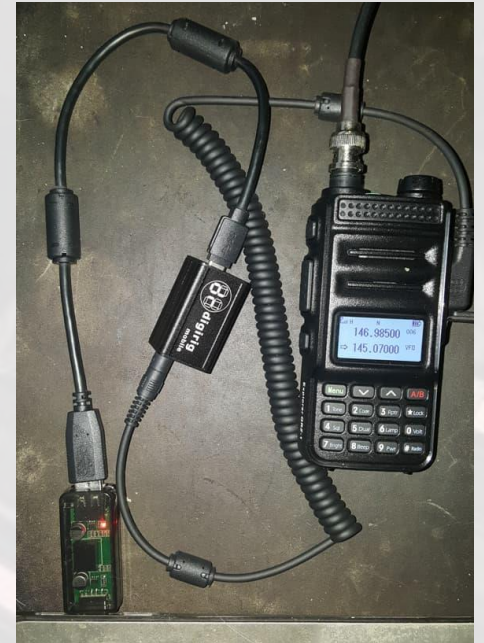
Select Mode & Digital Interface device

- Select the mode you prefer to use
  - *Packet*
    - *via TNC (Kenwood)*
    - *via Soundmodem app*
    - *via hardware TNC (Kantronics)*

  - VARA Sound Modem
    - FM
    - HF

Method	Attachment size	Time to send	Transfer speed
Telnet Winlink	~24 KB	0 min 0 sec	4.2 MB/min
Packet Winlink	~24 KB	6 min 26 sec	3.63 KB/min
VARA FM	~24 KB	1 min 7 sec	20.813 KB/min
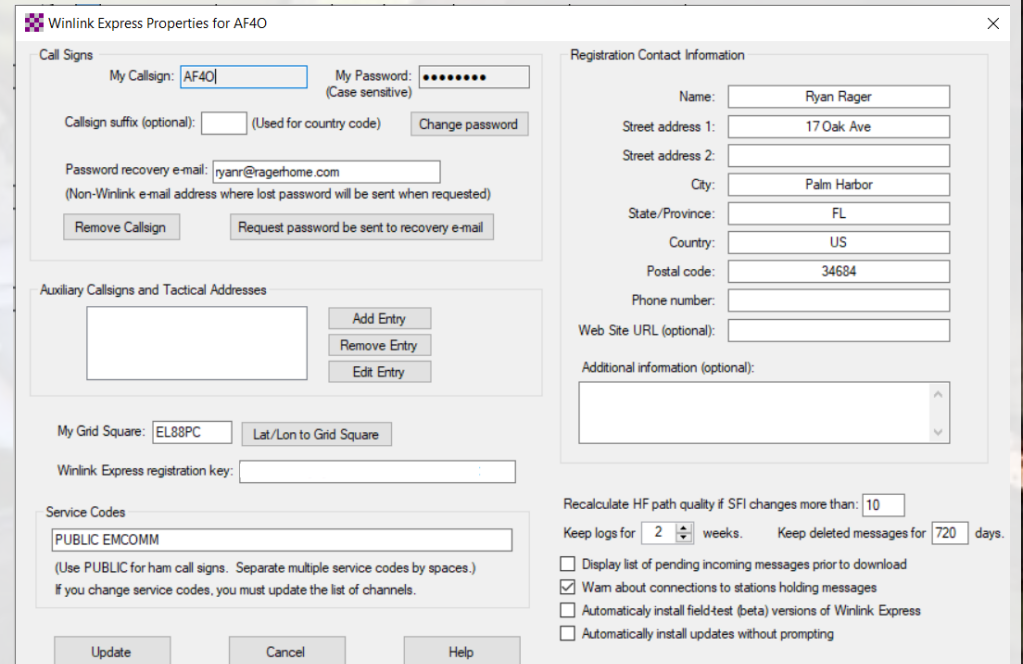
Setup & Config of VARA FM application

- **Download & Install VARA FM**
  - *Registration of VARA license is optional, but recommended*
  - *https://downloads.winlink.org/*

- **Leave setting on NARROW initially**
  - *If you have a registration key AND have a radio capable of 9600 packet operation, then you can select WIDE*

- **Open Settings menu**
  - **Select soundcard settings**
  - **Configure PTT setting**
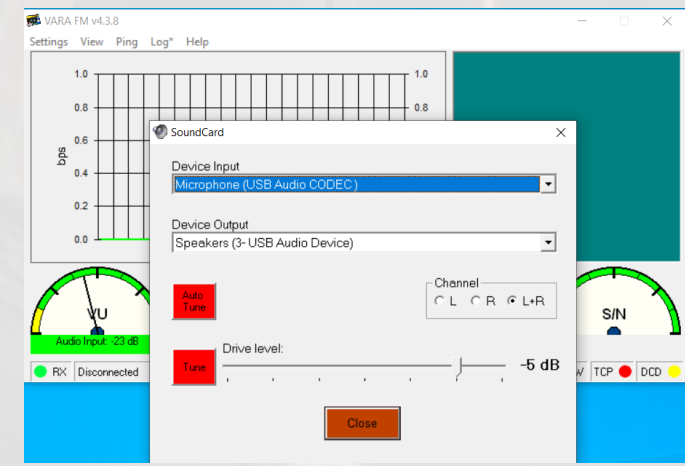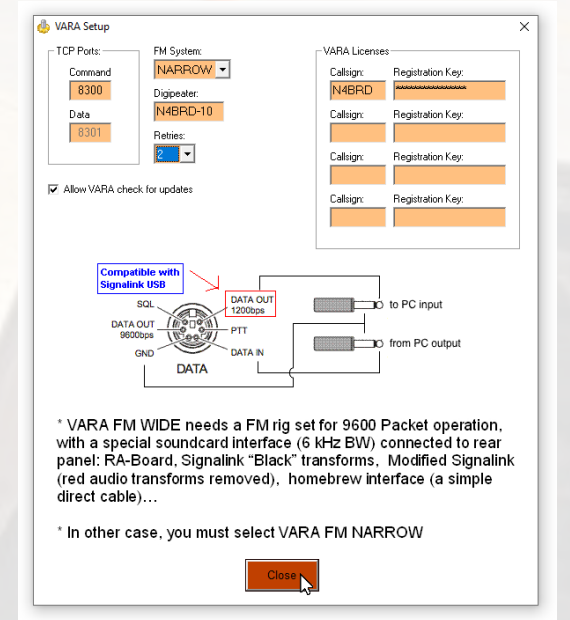
Setup & Config of Winlink Express application

- Download & Install Winlink Express
  - *Registration is not required, but highly recommended*
  - *https://downloads.winlink.org/*

- Open Winlink Express & create a login account
  - *Accounts are purged after 400 days of inactivity*

- Complete initial setup

Testing of Winlink Express installation

- **Test your setup**
  - **Compose new message & save to outbox**
  - **Open appropriate session mode**
    - Session window will open in Winlink Express and connect to your radio via the mode you have selected.
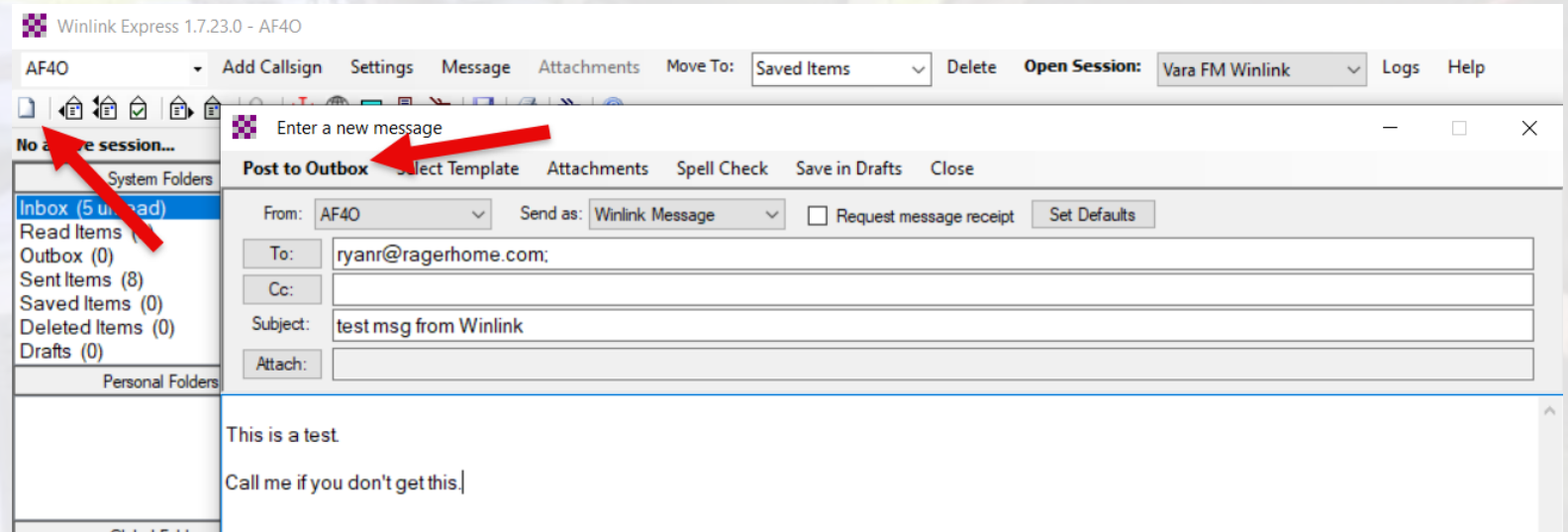
Testing of Winlink Express installation

- **Test your setup** *(cont.)*
  - Open appropriate session mode & click on 'Channel Selection'
  - Double click station to contact and Session window shows station call and frequency
    - If table is empty, click 'Update via Internet'
  - Set radio to the stated frequency & click 'Start'
    - The session will then begin the transmission of the message and tell you your session is disconnected once transmission is complete.

Additional resources for more Winlink information

YouTube

- Search for 'Winlink' videos

Winlink website

- https://winlink.org/content/user_support_and_help

Winlink Groups IO

- https://groups.io/g/Winlink

Thank you & 73!