**ARRL NATIONAL CONVENTION 2022**
**EMCOMM FORUM:  PREPARATION**
**& GETTING YOUR COMPUTER READY**
**FOR WINLINK PRACTICE**

We are trying to provide amateur radio operators with the best hands-on experience possible at the ARRL National Convention 2022.   We recommend that you bring with you:

1.  Any simple analog VHF transceiver for voice transmissions at low power. Familiarize yourself with how to set for lowest power, and how to change the frequency. We will be using simplex communications on the following frequencies:

> 146.490 MHz
> 146.520 MHz
> 146.550 MHz
> 146.580 MHz
> 146.610 MHz

2.  A Windows laptop computer (if you have one) running Windows 10 or later operating system, and reasonably "up to date" with Windows Updates.
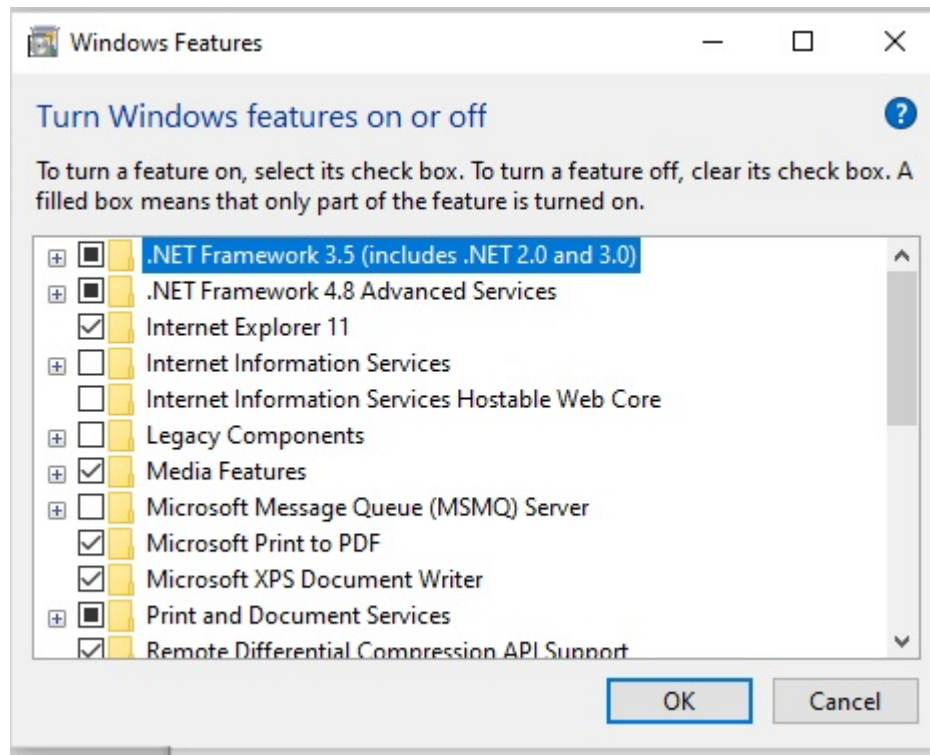
## OPTIONAL NITTY-GRITTY
### ---PRELOADING SOME SOFTWARE---

You can assist us in getting ready for setting up WINLINK EXPRESS third-party software on your laptop by carrying out the following steps:

**1.  Obtaining Microsoft Features .NET 3.5 and 4.8**

> Some portions of WINLINK and/or VARA require Microsoft Windows add-ons .NET 3.5 and .NET 4.6 or above.   You can find out whether these are installed and turned ON in your computer:

```
Windows Task Bar "START" Icon | SETTINGS | Search for "Turn
Windows features on or off"
```



You can see that I have some or all of both .NET Framework 3.5 and .NET Framework 4.8 installed and turned on.  (black check box)

I recommend that you download and install these if you do not already have them installed and turned on:
Download Site for .NET:    https://dotnet.microsoft.com/en-us/download/dotnet-framework
   •   Download and install .NET Framework 3.5 SP1
   •   Download and install .NET Framework 4.8

## 2. Download WINLINK user-software ("Winlink Express")

WINLINK software is often improperly considered "insecure" by various virus checkers.  I have never had any problems with it; the various virus checkers just don't like small niche software like amateur radio systems.    I suggest that you not let this alarm you.

Clicking this link will automatically download a recent version of Winlink Express to your DOWNLOAD directory.

   https://downloads.winlink.org/User Programs/Winlink_Express_install_1-5-44-0.zip

**You can stop at that point** (after downloading).   The next steps require a good bit of entry on your part, and our Mentors at the convention can help you.

## 3.  OPTIONALLY download the files for VARA (free version).

Background:  WINLINK EXPRESS includes (for free!) a quite functional HF data modem known as ARDOP, developed by amateurs and with source code available.   A more recent third-party data modem known as VARA is produced by Jose Alberto Nieto Ros, EA5HVK, a prolific and private developer.   Many amateurs find it superior to ARDOP for higher speeds, but Jose makes a slower speed entry use free, and charges $69 for you to get an emailed license giving you access to his higher speeds.   You can do QUITE FINE with the lower-speed entry level version for our purposes, or simply use ARDOP.   Optionally, you can purchase his higher speed version, which begins to provide (in my opinion) almost the level of overall performance that I get from my Pactor 3 modems.

If you wish to download Jose's VARA modem:

https://mega.nz/file/6SJBzQSK#ng67JHtJiFEtsECjZBu4a8IFfWDxku6_1jh0LhqZAr0

Do not "create an account" -- simply go to the bottom of the page and click the download link for the VARA HF setup.zip file.     There is no charge.   We can help you from that point.

(This download link can also be found at this site:  https://rosmodem.wordpress.com/


*Configuring WINLINK EXPRESS to create a free new account for you is easy (unless you have a dormant account, forgot the password, etc etc) -- configuring any of these data modem systems to properly transmit and receiver over real high frequency radio has all the same issues as correctly configuring PSK31, or FT8 -- modulation levels have to be within the correct range, ports and devices set properly, radio control may be desired, etc.   You may well benefit from having an "Elmer" help you get it all set up.   Without your radio at hand, we may not be able to help you sufficiently at that part during the Convention, but we can at least point you in the right direction.*