December 6, 2020 WC-ARES Net Training:
Vara FM

Presented by Doug Dukes, W5DMD

After Dick Foster's training last week, it dawned on me that there has been a lot of talk about Vara FM and what it could do. But it has been a while since anyone had talked about what Vara FM is and how we can take advantage of it.

Most of us know of the Digital Cavalry (formally called the packet cavalry) and the report that Dick Foster gives. Last week, that report was very impressive, and those members should be congratulated.

So what is Vara and how is it different from Packet as a lot of us are familiar with. Winlink is a way to send written information as an email directly to the internet via Telnet or over the radio by one of several modes supported by the Winlink system. Most people use a program called Winlink Express to do this and we will focus on that software. The radio message you send can be to a node in the Winlink system such as an RMS Packet Station or to a person also running Winlink Express using what is called Peer to Peer. Winlink supports a number of transmission modes. Tonight, we will focus on Packet and Vara FM which we use for local VHF traffic.

To take advantage of this system in years past we have used a TNC (Terminal Node Controller) such as a Kantronics to do packet. While this system has worked, and has been used for years, it is slow. As an example, a 120 KB document can take 45 minutes to send using the TNC along with the RMS software. Well technology has changed.

Thanks to men such as EA5HVK, creator of the Vara FM mode and the Winlink team and modern soundcards, we do have a choice. That is where Vara FM comes in. Vara FM is a new software for allowing a radio to connect with the Winlink system. As you might imagine with new software comes new equipment. Better equipment. Enter Master Communications. Masters Communications has made new sound cards or Analog Radio Adapters that act as the interface between your computer and the radio. But it is not just one box fits all. They make several, depending on the VHF radio you have. There is good news and not so good news about the sound card. The good news is, they are VERY cheap. Especially when you compare them to other TNC's such as the Kantronics or other sound cards such as the Signal link. Only about $30. The not so good news is that these cards are a kit. Now if you are into kits, this can also be good news also. But if you're not "handy" don't worry, the people at Masters Communications can complete the build for you was a very fair price.

So why would you want to switch. Well right now, the answer is SPEED. How fast? Well that same 120 KB document that took almost an hour to send, takes less than a minute with a good path to send using the Vara FM software and the new Analog Radio Adapters from Masters Communications. So that is 45 times faster. Pretty good reason, right?

So what else? We need the Analog Radio Adapter from Masters Communications. You need the right cable or cables depending on what radio you have and, then you need two pieces of software. Now all the things I list will be linked in the bottom of this training that will be posted on the Williamson County ARES website.

The first piece of software, well that is Vara FM... It cost nothing to download and try out. But we recommend that you purchase a license for it as it is worth it as the license is what opens

up the speed with this software. The other piece of software is from UZ7HO and the good news is it is free. So what does it do? Well it allows us to use the same sound card with Packet radio. That means that if you were ever to go someplace that had NOT updated their stations to the new Vara and the Masters Communications Analog Radio Adapters, it would allow you to slow your station down so that it can communicate with the older TNC stuff.

So that's about it…….. Upgrade your capabilities with one piece of physical hardware and two pieces of software and now you are faster. Not bad huh? Now I don't pretend to be an expert on this. That was one reason I did this training is so I could learn more about it. But Ares has quite a few members who have already switched over. I am willing to get whatever radio you have has already been converted by somebody in the organization. So there is your expert. As far as software goes, Tom tells me it does not take him long to configure software anymore and he can even do it remotely if that is something you want him to do. Personally, I can see doing a build a thon on the sound cards once all this stuff clears up. Even if it doesn't for a while longer, I sure don't see what we can't have several zoom meetings on building these cards. But that is just me.

In closing, allow me to add, that you may also be interested to know that the same Vara FM software you will be getting a license for VHF can also be used for a new Vara HF mode. And if you have a higher end radio like a Kenwood TS 590 or an Icom IC-7300 for HF, you don't need a sound card of any kind, as these radios have an internal card. Pretty cool huh? Even if you don't, the same card you already have may work with your HF. Who knows?

So there you go….. A little investment and a lot more capability. The Communication Trailer has already been updated thanks to Tom Whiteside and Greg Fuqua. They have plans to update the Go-Kits soon. Also as you know, the ESOC, the Cedar Park Police station have been upgraded and equipment purchased to upgrade the other area hospitals when we have access to them again. So with Christmas coming up, perhaps a new sound card could be on your list. Again, all the websites I talked about tonight will be listed on this training and posted on the Ares website.

That's all for tonight. W5DMD is turning this back over to Net Control, and please hold me short time with respect to the remainder of the net.

Analog Radio Adapter:
Masters Communications Digital Radio Adapter Interface Features List
Vara Software:
EA5HVK | Weak signals Software (wordpress.com)
UZ7HO Software:
UZ7HO Personal page - Packet-Radio - English version