

Packet Radio Revisited

Packet radio is not dead! Aside from acting as the ham radio equivalent of a telephone answering machine, packet is extremely important in emergency services. During times of local emergencies or disasters when phone lines are down, it can provide the only error-free, highly efficient method to communicate large amounts of data from one place to another. As the Emergency Coordinator (EC) for Ozaukee County, I can relate that we consider packet radio as key in our training and preparedness. Even if you are not involved with your local ARES group, packet is an interesting and fun ham radio medium. This article covers some of the general approaches you can take to setting up your packet system, and revisits some of the guidelines I wrote about in No. 15 of this series, *HOW TO NOT USE A COMPUTER*, back in October 1994.

The components of a packet radio system include a transceiver (an HT will work fine), a Terminal Node Controller (TNC - watch for a bargain at the next swapfest!), and a terminal or computer or both. Indeed, as I am typing this, I can look slightly to my left where an ADM-5 Dumb Terminal is showing packet activity on its screen. If I wish, I can slide over to its keyboard and type a message and have it sent out on the frequency. Similarly, incoming messages will appear on the screen. However, a dumb terminal is not a computer. It can be used to send and receive stuff, but once the messages scroll off the screen, they are gone forever. This device has no floppy or hard drive to record incoming messages (though the TNC **will** record messages addressed to your packet mailbox), or to prepare and store messages prior to sending them out. It is a keyboard and screen only - useful, but limited. Therefore, at my QTH, I use a dumb terminal as a display device, so that I can see what is happening on the frequency or to access messages held in the mailbox of my TNC, without tying up the computer. A flick of the A/B switch shown in the

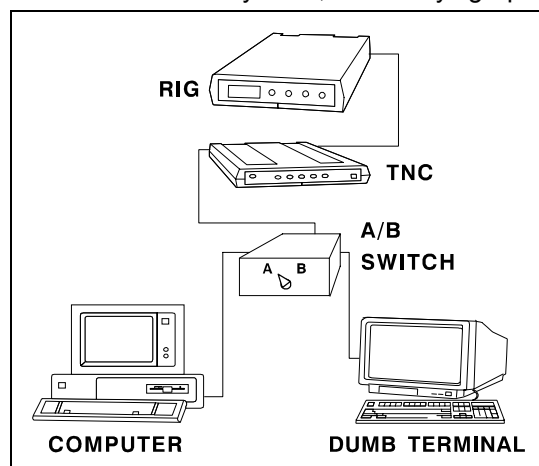


diagram takes the dumb terminal off line and connects the TNC to my computer, allowing me to save messages to disk or to send out messages that I have already put on disk.

On the other hand, at this point in history it is quite feasible for you to have a spare, dedicated computer for packet. XT and 286 class computers are now antiques, and can be had free in most places around the country, while 386s can often be purchased for around \$20. Even the lowly XT is perfectly usable for packet. See what you can find at the next swapfest! If you are in an ARES group, sniff around and see what you can find. I completely rebuild scrounged 386 and 486 computers and provide them free to my OZARES

members who wish to set up packet stations.

A word or two about a dedicated packet computer, if you manage to scrounge one. First, the whole packet station (including the computer) should be on 24 hours a day, especially if you are using it for ARES purposes. Therefore, you should disconnect the hard drive. Here is why.

Hard drives always run when the computer is on, whether you are reading and writing data or not. Therefore, they are always consuming energy and slowly wearing out. On the other hand, floppy drives automatically turn off when not in use, saving energy and wear and tear on both the drive mechanism and the surface of the floppy disk. Furthermore, you really gain nothing by using the hard drive in a dedicated packet computer; a floppy based computer will work fine. Even if you have only a single 360kbyte floppy drive, such as in an old XT computer, everything you need will easily fit on a single disk. You can get the operating system, several important DOS external files

and YAPP (Yet Another Packet Program - the most widely used packet program in the world, by Jeff Jacobsen, WA9MBL) all on a single disk with plenty of space left for lots of incoming and outgoing messages. The YAPP program itself is only about 30 kilobytes in size, and even with all the ancillary files it only occupies about 50 kb of space, easily manageable on a 360 kb floppy.

Need help setting up the floppy? Write me a note describing the type of computer you have (IBM and compatibles, only), including the size and number of disk drives (360kb, 720kb, 1.2Mb or 1.44Mb). Be sure to indicate which is the A: (boot) drive. I will prepare and send you the packet-ready boot disk. No charge, of course. How's that for an offer? Happy packeteering!