

ALACHUA COUNTY AMATEUR RADIO EMERGENCY COMMS IMPORTANT FACTS TO KNOW

VHF DATA COMMUNICATIONS

While many different modem protocols will work over the wonderful audio clarity that VHF FM can provide, the AX.25 “packet” protocol at 1200 baud is still pre-eminent for universal vhf data communications.

You must know that the CENTER FREQUENCY in the audio passband is REQUIRED to be:
1700 Hertz

(There are two tones, 1200 Hz and 2200 Hz, a total of 1000 Hz apart.) It isn't like HF PSK31 where you can put it anywhere..... **That frequency should be memorized.**

Hardware modems generate and receive these tones and convert them to digital RS232 or USB (universal serial bus) signals --- soundcard/software modems (e.g. soundmodem.com) accomplish the same.

TX GAIN: If your transmit audio volume into the radio is too low, your tones won't be heard – if too high, you'll over-deviate and cause other problems. Adjust your transmit audio tones so that when listening on a separate receiver, you are clearly slightly below the “top” of the loudness possible.

Pictured to the right are important typical settings for soundmodem.exe

Most important is to have correct protocol (AFSK AX.25 1200bd) and center frequency (1700 Hz).

It's easy to knock the “window” out of kilter in the waterfall display if you aren't aware of these important parameters.

