



PCARS



The Club that puts the FUN in Ham Radio !

HF DIGITAL NETS

- **WHY DIGITAL ONLY NETS?**

- Unlike Amateur bands 6 meters and above, HF phone and data modes are separated into sub-bands of a given band, the exception being 60 meter channel allocations where phone and data can be transmitted on the same channel

- Forces nets to operate on only the mode permitted for that sub-band e.g. phone only in the phone sub-band and digital only in the data sub-band
 - Like CW nets, digital nets require the use of pro-signs and Q signals to make the net operate more smoothly and efficiently and reduce required transmission time

- PRO-SIGNS

- Pro-signs are the CW/digital equivalent of pro-words used in phone operations
 - DE – the pro-sign that means “This is” on phone; used with your call sign at the beginning and end of each transmission
 - K – the pro-sign that means “Over” on phone; used at the end of a transmission to indicate that you are done sending but expect a reply from the other station
 - AR – the pro-sign that means “Out” on phone; used at the end of a transmission to indicate that you are done sending and do not expect a reply from the other station
- The above are the basic pro-signs we will use in this week’s net; more will be learned and used in future training

- Q SIGNALS

- Q signals are three letter word groups that start with Q and represent commonly used phrases and sentences

- QNI – “Net stations report in” or “I am reporting in”

- QNN – “The NCS is”

- QNS – “The following stations are on the net”

- QRU - “Do you have anything for me” or “I have nothing for you”

- QRV – “Are you ready”

- QRZ – “Who is calling me”

- QTC – “How many messages do you have to send” or “I have the following messages to send”

- As with pro-signs there are many more Q signals and more will be learned in future training

- Q SIGNALS

- Representing a Q signal as a question

- Many Q signals can be used as either a statement or a question for example using QTC can mean either “I have messages for _____”, or it can mean “How many messages do you have?”
 - There are two ways to make a Q signal represent a question
 - The most common way in amateur radio is to add a question mark after the Q signal, for example QTC?
 - You may also see the use of INT in front of the Q signal that does the same thing, for example INT QTC

- **WHAT TO EXPECT**

- Below are a few sample transmissions of what you may see during the net. They are not all inclusive but just meant to give you a feel for what it will look like

“PCARSDN PCARSDN DE K8CAV K8CAV K8CAV QNN K8CAV QNC QND QNI QRU? K” which means: “PCARSDN this is K8CAV, K8CAV is NCS (QNN), all stations copy (QNC), net is directed (QND), net stations report in (QNI), do you have traffic? (QRU?) over”

- If KD8FLZ were checking into the net you may see:

“K8CAV DE KD8FLZ KD8FLZ QNI QRU K” or “K8CAV DE KD8FLZ KD8FLZ QNI QTC 1R K8SRR K” which means: K8CAV this is KD8FLZ I am checking into the net (QNI), I have nothing for you (QRU), over” or K8CAV this is KD8FLZ I am checking into the net (QNI), I have one routine message (QTC) for K8SRR, over”

- NET OPERATIONS

- K8CAV is NCS; the net is a directed net, all communications must go through NCS
- The net identification is PCARSDN
- Net Date/Time: 27 October 2015/7:30 PM EDT
- Net will open on 3.584 MHz, alternate 3.585 MHz
- Mode is PSK-31, set waterfall cursor to 1500 Hz
- The net will open and then ask for check-ins. All stations should pause momentarily before transmitting to insure they are not doubling with another station
- Any listed traffic will be passed & training conducted
- Informal comments taken
- Net is closed

- **ADJUSTING AUDIO DRIVE LEVELS**

- Proper drive levels are important to minimize splatter and excessive bandwidth when transmitting; several rules of thumb to follow.

- Operate at 30% of transceiver's rated power
 - Set transceiver's power output control for full rated output, adjust audio drive for 30% or less of rated power output
 - Use sine tone in software package for adjusting levels
 - e.g. fldigi, tune button in upper right portion of fldigi window
 - Check transceiver ALC meter, should have little or no indicated ALC
 - High SWR may cause power foldback; do not increase audio drive to compensate