

How do I?

An occasional series

This week: Playing with trains or other things your radio can do!

I love hobbies that cross over. Finding time and money for one hobby is tough enough. But when that time or money can help you enjoy two or more hobbies, it makes it so much easier to justify it!

I am a railfan. I've been one for over 35 years. I read once that a true "train nut" has 10,000 photos. Let's just say I have more. And that was in the pre digital camera days. I started with the classical "train set under the Christmas tree" when I was in first grade and never looked back. When I was in high school I knew of ham radio, but didn't know any active hams. Actually had 2 family members who were licensed but they never said a word about that. When I was in college I thought about joining the Penn State amateur radio club, but didn't. Finally in 2007 I realized that my Grandmother was about to turn 100 and planned to be buried in New York state. I decided that maybe I didn't have much time if I was going to have fun on the trip there, so I went to the ARRL website, joined, bought the tech manual and roughly 60 days later was licensed. Ironically enough, my original license date was her birthday! But I still didn't plan to own a radio. I belonged to a few Yahoo groups and one was about railroad radio and scanners. Whenever someone inquired about a scanner, several people suggested getting their ham license and buying an HT. I had the license so I bought a Yaesu VX-170 HT. Love it. It is the best handheld "scanner" I ever owned and it can do cool stuff, like public service events (see *Public Service* elsewhere in this series) . As I became busier at work and less time to get out, I sold my 30 odd year collection of HO scale train equipment and put the money in to my first HF rig.

Steve Ford WB8IMY has an article in the February 2019, *QST* entitled "Radio On the Rails". It scratches the surface of operating on trains and what you can hear. Steve Barry, Editor of *Railfan & Railroad* has been encouraging folks for several years to use a ham radio HT as a scanner. Best of all there are some frequencies that hams chasing trains have adopted as common frequencies to use for communicating during events. For example, when N&W 611 was moving from Spencer, NC to Roanoke, VA, there were many ham radio/railfans chasing the train. They used 146.490 and 146.565 to advise of problems, train location, photo spots etc. Other common frequencies are 223.620, 466.050 and 1294.425.

What can you hear?

There are 97 “old” AAR channels and nearly 200 total. The American Association of Railroads acts as the frequency coordinator (similar to a repeater coordinator for ham radio). Every railroad has assigned frequencies (channels) to avoid interference.

There is no channel 1. I suspect that is on purpose to avoid fighting over channel 1.

Channel 2 is 159.810

Channel 3 159.930

Channel 4 160.050

Channel 5 160.185

Channel 6 160.200

These are only used for rail operations in Canada. In the US Channel 3-6 are used for railroad owned trucking operations (intermodal terminals etc). Channels 7-97 are used in both the US and Canada. They are in 15kHz increments.

channel 7 160.215

channel 97 is 161.565

For a full list see “railroad radio frequencies” under the resources tab at the CARC website; <https://www.radioclub-carc.com/>

Circa 2012 they inserted interstitial channels between the existing ones at 7.5kHz intervals. If your radio or scanner can handle 4 digit (after the decimal point) frequencies, you are good. If not, just turn up the volume. The “new channels” are not used much anyway. For railfans the biggest benefit of the switch is that railroads had to replace a lot of radios and antennas and you can generally hear more.

For a lot more information: Kalmbach Publishing Company *Compendium of Railroad Radio Frequencies* various editions has a lot more information. *Railfan and Railroad* magazine has a monthly column by Vincent Reh “The scanner man”. Radioreference.com and trainweb.org also have more information.

What can you hear?

Train crews and dispatchers talking to trains. Maintenance of way (MOW) talking to everyone. Around yards you will hear yard crews.

The 800 pound gorilla: There are 2 events looming that have railfan circles buzzing. One is the move to digital radio. Larger railroads, particularly CSX have been testing digital, most commonly NXDN for several years. Once it goes mainstream, listening in will be much more difficult. Even if you have a NXDN radio from Kenwood or Icom, I am not sure it will be possible to hear. The ones doing it now seem to have commercial railroad radios at around \$2500 each, or work issued radios.

The other is PTC. PTC is the wonderdrug for all that ails radio safety. It's a boondoggle, but never mind. As part of PTC instead of giving train orders “Form D”s over the air for all to hear, it is possible to send them electronically (think NBEMS messaging

via FLDIGI and flmsg in ham radio) or the on board computers used for communication in the trucking industry). This is already happening, particularly on BNSF for MOW work.

Catch ya on the air!

CSX westbound Hancock WV 1/23/2010. Only way I knew it was around was my ham radio was scanning CSX.

