

Ham 20 - What ham does

Dr. Marc & Rosemary Durham, Theway Labs, Bixby, OK © 241214

I am often asked, “What does a ham do?” or with an assertion, “You don’t build radios anymore, what do you do.”

I can understand the sentiment. I have been involved with radio since the 1950s, when Dad bought me a mail-order 10-in-1 Knight Kit from Allied Radio in Chicago. Dad was a builder / electrician in a small rural town in Louisiana, so he ordered parts from the city 50-miles away. The delivery was by Continental Trailways to their bus station at 7:20 PM. That was the Amazon of the day. The more things change, the more they stay the same.

The radio kit required soldering by a preteen boy with an old soldering-iron which I heated on the gas stove-top. What could possibly go wrong? The overreaching safety precautions had not been invented. Then I became an ardent shortwave listener logging QSL cards from Europe, Asia, Australia, New Zealand, and HCJB in Quito, Ecuador, was as loud as next-door. The hook was set.

Those were the days we built our radios and knew where the closest tube-checker was so that we could repair the black-&-white television that evening. Later, one of my electrical engineering professors advised the class to take a TV repair course. That is not what engineers do, but he wisely advised, “If you cannot fix your neighbors TV, they will question you as an engineer.” The black dial-up telephone, owned by AT&T, was in its own worship alcove in the hall. Just as all the other technology has changed, so has digital VHF/UHF amateur radio.

Three aspects determine the level of activity for hams: the technology or equipment, the mental exercise or gymnastics, and the lifestyle or what you do with it.

Technology has progressed at warp speed. The telephone was hooked-up by wires. You could talk locally, but across the county was a long-distance call with exorbitant rates. No other devices were allowed connected on the phone line.

The cost of ham does not have to be stratospheric. The technology has progressed such that the Japanese radios were available first and have developed a more mature, quality rig. The less-expensive units tend to derive from mainland China. However, prices are equalizing where China rigs with similar capabilities are as expensive as Japan. The country of origin is significant since that determines some of the connectors.

Digital, in its various implementations, provides the greatest opportunity for experimenting and building. A ham project now is as likely to be with a computer keyboard as with a soldering iron.

HF digital has numerous modes doing computer interchange of information. As little as 5 W with modes like FT8 can communicate from our part of the country to Europe or Japan. An active ham may never speak into a radio.

VHF/UHF manufacturers have tried to promote technology so their radios are more in demand. D-Star by Icom, System Fusion by Yaesu, and DMR by Motorola have a foothold, but AllStarLink independent technology overcomes their limitations.

The Raspberry Pi, diminutive, Linux-based, open-source, <\$50 computer is the de-facto ham computer for makers and developers. By adding software and a few wires, it can replicate any-and-all the manufacturer digital systems. I use it to control radios, motors, and as a stand-alone SDR receiver.

An open-source network, AllStarLink, is the new digital voice technology. The systems still largely have maker components. AllStarLink allows global communications with radios and computer links at a very inexpensive cost. AllStar links radios, cellphone, and Linux computers around the world. Get registered and build a node for simple communications, simple equipment, and simple fun. Call someone, somewhere.

The focus of our group is to have communications in any emergency. Our weekly Net involves two methods of communications including AllStarLink on the repeater, or simplex. More ham options exist now than at any time in history. Ham radio, when nothing else will work. Life is good. Enjoy.



Icom 2730 analog



Icom 5100



Icom 7300, HF SDR



Phone in shack



Raspberry pi computer

