The Joys Of Operating A Vintage Radio

What is it about operating a vintage radio?

A few of our LVRAC members take great delight in operating the vintage radios in their shacks. There's something about this gear, and the experience it provides, which draws us deep into our hobby's heritage. The warm orange glow of tubes and the elegant design of many of these rigs can easily fill a shack with magic and enchantment.

Knob turners and tube users may strike some of us as quaint. Why bother with a receiver where signal selectivity can be shaky at best?

What some consider an avoidable annoyance, others welcome as a thrill and a challenge. Operating vintage gear is a rewarding journey, an on air experience that for its enthusiasts feels fundamentally different, richer and more fun, than operating today's gear.

So what's the big deal? What makes this amateur radio odyssey such an adventure?

K7EAU

"Operating a vintage station provides an experience (you) can't get with modern gear", says LVRAC member Steve, K7EAU. "Vintage gear has a look and feel that modern stuff simply doesn't have."

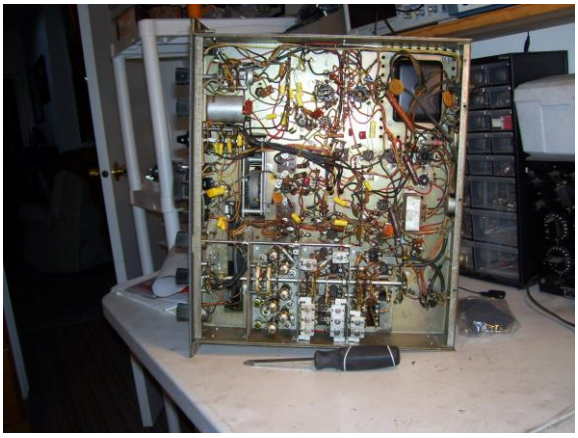
"When I got my novice license in 1967, my Elmer let me use a 1950's transmitter and a late 1940's receiver he had. It was good quality gear, but very basic. The receiver had essentially no selectivity. It was quite challenging, but at the same time, it was a new and exciting experience."

"A QSO from Wisconsin to Iowa on 40 meters was like working a rare DX station today. A QSO back then required more effort and skill, but it was also more rewarding."

Today, Steve's shack features vintage gear in sundry stages of restoration.

“I am working to get a Hallicrafters HT-32 transmitter

and SX-101A receiver on the air”



“I have a Hammarlund HQ-150 I really enjoy tuning around the bands with.”

“Eventually, I have a Hallicrafters SX-24 (pre WW2) receiver I want to fix up.“

“There are some other things laying around I should start on.”

“A vintage equipment fan always has more stuff than they can use! The only rig I might be tempted to get is a Johnson Viking 2 transmitter. As someone from Wisconsin would say, "it really looks neat!”

Want to learn more? Check out Steve’s Five Fundamentals Of Vintage Radios.

KE7OPK

For LVRAC member Joe, KE7OPK, a fascination with vintage radios began in what many of us might consider an unlikely place.

“My interest in tubes began when I looked into the back of my grandmother's Zenith color TV (circa 1966). I was amazed at the glowing glass bulbs and my mom said they were tubes. No one cared if I messed with that TV. I replaced tubes and took them to Radio Shack or Sandy's where they had big testers. I fixed a lot of other sets that belonged to friends in junior high school and high school.”

“I now know that they were Compactron tubes, and I had a Swan radio that used the same tubes and was architecturally similar to the Zenith. The Swan was maybe a model 300 or 350. That was a long time ago and I didn't keep it long.”

“In high school I got a Lindsay reprint of the 1934 Shortwave Radio Manual and it had a lot of circuits. I still have the book. I collected text books (McGraw Hill) from the 30s which were all about tubes. I gave those books away a long time ago and they can still be found on eBay and in used book stores. At some point, I was told that tubes were superior to transistors.”

Joe’s fascination with tubes remains as solid as ever and his shack still glows.

“The only accessible vintage receiver is my Hammarlund HQ-145X, which like so many other items in my possession came from Charlie's garage (LVRAC Country Store). I had to replace a handful of tubes for it to work.”

“It drifts until it is warmed up for an hour. This is annoying. The crystal filter and selectivity controls are a trick to operate, and you will read the manual every time you try it. I think the slot filter is a load of crap. I don't really understand it that well. I have the book, and I have read it, but never really used the feature.”

But even though Joe hasn’t used the rig for a QSO, the Hammarlund is no slouch.

“I have heard Japan on 6 MHz, someone speaking Spanish on 10 meters, AM radio, CW on 40. My shack consists of a Yaesu ft-200 and ft-847.”

“I would like a Navy receiver like I saw at NO7BS (Kirk's) location. I would not trade my Yaesu for anything. Stable, easy to tune in tiny increments, accurate tuning.”

“I like the delay in waiting for the tubes to warm up. The real early ones from the 20s can take a long time. Vintage gear is touchy. Some of the features are a little mysterious. The radio drifts until warm for an hour. There is NO substitute for the FT-2000.”

And there’s no assurance that every rig is going to be a winner. “I tried, unsuccessfully, to acquire a Heathkit HW 101 and even had it professionally fixed and serviced. It worked for an hour. NEVER AGAIN.”

“I also have a Hallicrafters "Defiant" SX-24 I restored and some tabletop radios which have SW.”

The Endless Excitement In Our Shacks

It may be a stretch to see ourselves at some future date looking back on SmartSDR and FlexRadio technology as yesterday's news. But chances are we shall, just as those of us who were around for the dawn of SSB in the mid 1950s began to dismantle the decades long dominance of AM.

How fortunate we are to enjoy a hobby where the past ignores irrelevance, the present gives us so much to enjoy, and the future could hardly be more exciting.

The Five Fundamentals Of Vintage Radios
By Steve, K7EAU

1. **Appeal**

Technological development has had a dramatic impact on amateur radio. In the very early days of amateur radio, everyone had to build their station. Radio stores sold components (resistors, capacitors, etc.) not assembled receivers and transmitters.

Today, the situation is almost completely the opposite. Very few people operate home brew gear. This is a mixed blessing. Modern equipment has enabled activities (like POTA and SOTA) that wouldn't be possible 40 or 50 years ago.

Recent rigs are both easier to operate and perform much better. However, something has been lost. In the early days, amateurs had what you could call an "intimate relationship" with their station -- after all, it was their creation! If something went wrong, they could fix it.

Later, when commercial equipment became available, reviews in QST would include a very detailed description of the various circuits. So, even if the operator didn't actually build the rig, he had a good understanding of how it worked.

To fully utilize the rig's capabilities, operator skill played a big role. For a serious contest operator, or for someone doing a POTA activation, knowledge of the equipment they are using is no big deal. But for others, operating a vintage station provides them with an experience they can't get with modern gear.

2. **Transmitter/Receiver vs. Transceiver**

Most vintage stations used separate transmitters and receivers which added to the overall effort. When answering someone calling CQ, the operator had to "zero beat" the transmitter to make sure they were on the same frequency. When using the same antenna for transmitting and receiving (as was commonly done) a T/R switch of some type was needed to switch between transmit and receive as well as mute the receiver.

Most older vintage gear had no automatic gain control (AGC)

AGC can make a significant difference. Without it, an operator had to be proficient (and especially, quick enough) using the RF and AF gain controls.

3. **Transmitter Tune Up**

With vacuum tube transmitters, the operator had to first set the grid current to the final amplifier. Then, the plate loading and plate tuning controls had to be adjusted for the correct plate current. When using AM, controls had to be adjusted to get the correct modulation current.

4. **Selectivity and Noise**

QRM and noise could be dealt with quite effectively with older receivers. However, it took considerably more skill and experience using the front panel controls to accomplish this.

5. **General Coverage Receivers**

Most receivers before the early 60's were general coverage (as compared to ham band only). Both the main tuning and band spread controls had to be set accurately. In less expensive receivers, the calibration wasn't good enough to tell which frequency you were on, with much accuracy.

Once an operator gained experience with the above-mentioned items, it wasn't a big deal. Plus, an operator had a better feeling about actually operating a station. Their knowledge and experience made getting on the air more enjoyable.