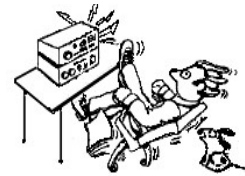


## The Elmer's Corner

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So, which is better? New or used? It's a matter of perspective, your expectations, and ability to pay. If you can afford it, there is nothing quite like having new equipment in the shack, but if you are like most Hams I know, new equipment may be financially out of reach.

### The Market Conditions:

New rigs have all the bells and whistles, advanced DSP processors, dual watch, panoramic adaptors and displays, world time indicators, and the list goes on. I really like what Yeasu is doing with the FT-450D, or Elecraft with the K3, as good examples. In the "Big-Box" radios from Yeasu and ICOM, much of the technology on display is fluff and doesn't really help you make contacts. But, if you've got the cash it takes to buy one of these rigs, they are great fun. We spend much more time with our rigs listening than we do talking.

There is a lot of good used equipment on the market that can be had for much less than its original purchase price. As a rule of thumb, you can usually purchase a lot more used radio than you can new, but there are trade-offs. Just because a rig was built in the 1980s doesn't mean it's obsolete. Consider the Kenwood TS-940S for example. It's all analogue (even the hefty built-in power supply) but features excellent crystal filters (optional), a variable CW passband filter, and SSB slope tuning that can be shaped and tuned to fit listening conditions. New, it cost the equivalent to a modern high-end rig. Today, its well below \$800 with the built-in analogue antenna tuner.

### Buying a used Rig:

Like the public at large, not all Hams can be relied on to tell the truth about what they are selling. Fortunately, buying from another Ham is usually safe and secure, but it pays to do your homework. Remember to trust but verify. Here are some tips:

1. Set some realistic goals about what you want in a rig and what you are willing to pay.
2. When bidding on a radio at auction, set a limit on what you are willing to spend and don't get caught up in competitive bidding, or you may pay more than what the equipment is really worth. Another radio will appear and you will have other chances.
3. Do your research. There is a huge volume of information on the Internet about practically every Ham radio ever made. Know the rig's capabilities and shortcomings before you negotiate a sell.
4. Know your buyer. Always verify that the buyer is who he says he is. For Ham's, this is easy to do. Look on QRZ.com at the Ham's profile, address, license class and interest. If the address does not match what you've been told, run away!
5. Buy local if you can, but don't be afraid to buy from eBay or QTH.com classifieds or QRZ.com. Buyer protection on eBay is much better than in the past if you need a safety cushion.
6. Will the Ham guarantee that the rig is working as new, or just not DOA (Dead on Arrival)? A rig that is not DOA, but is also working less than new, is a problem. Sometimes it's worth paying a little extra if you know you can return the rig if it doesn't work as advertised.
7. Will the Ham package the shipment to you in an appropriate manner? Power supplies need to be packed separate from the rig, as an example. Always insist on shipping insurance.

Words to avoid, or at least read between the lines:

- It was working when last used. (30 years ago before the great flood)
- It's from an estate and the relatives said it worked. (it did, but that was before it was hit by lightning)
- It's rare! (some radios are rare but that can also mean they weren't very good to begin with)
- I have no way of testing the unit. (I plugged it in and it didn't work)

***Most Hams take good care of their equipment.***

I still buy used. It's a great way to make your dollar go further! If the seller will guarantee the performance of the radio he is selling or let you return it, it could be a good rig for you.

Used HF radios worth having:

Here are some of the rigs, presented in no particular order, I've seen available that are worth considering. Remember, do your homework. The Internet is your friend, but not everything you read on eHam.net reviews is worth the print. Everyone has an opinion, the majority opinion is usually the best.

Kenwood TS-520S:



During the late 70s and most of the 80s, this was the entry level radio for many Hams and it's still a good, basic rig that can be had for a song. There were a lot of them made and they are readily available on eBay. They can be easily repaired and maintained, produce 100w with good SSB audio, and have a built in power supply. But, this is a hybrid radio and uses 6146B transmitting tubes and a 12BY7A tube driver, both of which are plentiful. It does NOT have the WARC bands (30m -17m-12m), but a lot of accessories are still available including a remote VFO. The TS-520S is considered the best of the series.

Elecraft K2:



This is a kit radio made by Elecraft ([elecraft.com](http://elecraft.com)) that is still being produced. It features a great receiver (see [sherweng.com/table.html](http://sherweng.com/table.html)) that is only slightly less robust than the top end radios. Although a kit, every K2 ever made can be updated in the field to the latest release hardware/software configuration. Great customer service and an active Ham community mean a lot of support is available. The rig needs an IC mic or an outboard single stage amp to work with, say, a Heil HC-5 element. It has computer control, if the RS-232 module is installed (standard on 100w models) and can be configured from QRP to 100w, as your budget allows. But you have to build it or buy one already made. That's more expensive, but may be worth the cost if you want to get on the air quickly.

Kenwood TS-940S



Available as the 940S or 940S-AT (internal antenna tuner), this was the DXer's weapon of choice in the mid 1980s. It's all analogue, including the tuner, is a big box radio that has a built in power supply and features that are still very usable. Excellent SSB audio and adaptable to any modern digital AFSK sound-card mode or dedicated FSK RTTY terminal. Computer is control available through an external TTL converter, which really are rare, but newer alternatives are available. Some of the components are obsolete, but modern substitutes are available as are service centers that still work on this rig if needed.

Kenwood TS-950S



The successor to the 940, and the holy grail to some, the 950S is available as a dx model and features Kenwood's first venture into DSP. It was high-dollar then as now, but still significantly less than the top end radios of today. Many of the shortcomings of the original 940 were resolved but others were introduced. Still, if you can afford one, it's a great classic and top HF DX performer.

### Yaesu FT-1000D



The FT-1000 and later FT-1000D were “Big-Box” radios that have all the bells and whistles and are still very capable HF DX machines. Although not often discounted because of the demand, if you can find a good example at the right price, it may be worth the look. The D model is preferred as it has all the options built in and output is adjustable up to 200w. It is still a very high-end radio.

### ICOM 706 MKII G



The 706 line of radios are perhaps the most successful amateur radios ever made and the MKII G is still very desirable as the standard mobile rig, although it has been replaced by the IC-7000. It covers all HF bands, 6m, 2m and 23cm in all modes including AM. Practically any accessory you can imagine is still available, from mobile mounts to automatic antenna tuners. Optional crystal filters really improve CW and SSB reception performance, but not at the same time (not enough room on the board). The display is almost impossible to read while wearing polarized sun glasses, and its menu driven system can get cumbersome. But, bang for the buck, it's hard to beat. The MKII G model has AF DSP, Repeater offsets, PL tones and other features that make it the most desirable of the series. Good examples are well priced below \$700.

### ICOM 756 Pro:



The 756 Pro series of rigs from ICOM took the amateur world by storm when they were first introduced, but then the candle faded when ICOM started releasing “upgrade” radios in the series, Pro II and Pro III, a year later, with no way for Hams who had the original 756 Pro to upgrade without having to buy a new rig. The radios featured new IF DSP capabilities, dual watch and other very useful features including an amazing bandpass color display. The actual difference between the various Pros was how ICOM implemented the DSP technology. The Pro II and III differ only modestly and both are very good DSP performers, especially on data modes and chasing split operation Dxpeditons.

### Ten-Tec Omni VI+



This was the last of the famous line of Omni rigs from Ten-Tec, before the company transitioned over to full IF DSP software controlled rigs in 2002, and it is still considered one of the best contest rigs ever made. The receiver is one of the most sensitive and quietest, featuring a big dynamic range, and with AF DSP, it can still stand toe to toe with many modern rigs. It is a Ham Band only rig with no general coverage receive, as is the case with most Japanese rigs. Built like a battleship, Ten-Tec still services this rig and it has a huge following and support group. Many accessories are still available including crystal filters, that make CW selectivity match anything modern. You might have problems prying one of these rigs from the cold dead hand of its owner!

There are many more used radios out there that can be a good first rig and later serve as a mobile or backup rig when your finances allow you to upgrade. The ones I've listed are the ones I've actually operated or still own. Each does something a little different and has its own quirks, but any one of them would make a fine first rig.

Questions? You can contact me via [w5ddw@arrl.net](mailto:w5ddw@arrl.net). See you on the bands!