



## Q5er – The Official Newsletter of the Skyview Radio Society



### 2022 Skyview Swap & Shop

Our shade was appreciated !!

**2022 is Skyview's 62nd Anniversary !!**

October 1, 2022

- Interesting Technology
- Contest Logging Software
- Breezeshooters Officers
- Unusual Car Cruises Entry
- Sorry Charlie !!
- K6ARK Balun Build
- Tornado Alert
- Alpha 87A
- CQ WW RTTY

**The Sunspots Are Here !!!**

**Time to exercise the 10-12-15-17-20 meter bands**

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**The Skyview Radio Society Clubhouse is the “Every Tuesday Place” . . .**

Something is going on at ‘the joint’ each and every Tuesday evening, from about 1900 hours to whenever.

See the general schedule of Tuesday events on the Skyview Web Page: <http://www.skyviewradio.net>

For the latest up-to-date plan, check the Groups.io Reflector at : <https://groups.io/g/K3MJW>

Directions are on: <http://www.skyviewradio.net>

Guests are always welcome !!

### From the Editor

Lots of great articles this month.

Keep them coming !!

A Really Big Issue this time. My thanks go out to all of the article contributors who have filled these pages. Also my thanks go out to Ron-W3WN who contributed his large collection of Skyview Swap & Shop photos.

As I went through Ron's photos, I couldn't help but see how many notable members from our neighboring WPA clubs attended our Swap & Shop. It was almost like we had everyone listed in the 'Who's Who of WPA Hams' attending. Glad to see all of you making the trip.

Jody - K3JZD

Remember: The number of people older than you never increases., it only decreases

### From the Treasurer

We had a very successful Swap & Shop in August. Our net income ended up being just a bit above what it was in 2021. Since we use what we earn at our annual Swap & Shop to fund improvements in radios, antennas, and facilities, it was really great to have another successful year.

Soon you will be getting your Skyview Membership Renewal letter. Our annual Membership Dues are used to pay for all of our fixed expenses. There are only two other radio clubs in WPA that own property and have clubhouses with radios and antennas. After your first year of membership, you can obtain a key to get into the clubhouse so that you can use those great Skyview radios and antennas anytime. There is much more to Skyview, but that alone is a great membership benefit. Looking forward to having you renew your membership for 2023.

Jody - K3JZD

**Ham Radio is a Contact Sport**

**Use the Skyview Facilities At Your Own Risk.**

Follow <https://groups.io/g/K3MJW> for COVID updates.

**Skyview Radio Society is recognized by the Internal Revenue Service as a charitable non-profit organization under Section 501(c)(3) of the IRS Code. Donations to Skyview are tax deductible to the extent permitted by law.**

Here is another issue. . . . .

Not saying it is the last one that I will publish. But it could be . . . .

Jody - K3JZD

***Well done is better than well said. — Benjamin Franklin***

## September Business Meeting Minutes

de Don - WA3HGW

### Skyview Radio Society

#### Monthly Business Meeting – September 6, 2022

**Call to Order:** 7:30 PM by President Scott Gliebe, AC3GB.

**Attending** – 29 members: WA3HGW, KC3CBQ, NM3A, K3CLT, N3WMC, W3BUW, K3JAS, N2MA, AB3GY, W3IU, W3ZVX, N3TIN, K3JZD, NJ3R, AG3I, KQ3S, K3FAZ, KC3PXQ, AC3GB, K3STL, KG4JBB, KC3LHW, W3CDW, AG3U, AC3EE, N3VXT, AJ3O, K3RAW AND WC3O.

**Prior Meeting Minutes:** The minutes of the August 2, 2022 meeting were distributed for member review. A motion to accept the minutes as presented was made by K3JAS and seconded by N3WMC. The motion passed without objection.

**Treasurer's Report:** Treasurer Jody, K3JZD, reviewed the Swap-n-Shop results and latest financial report. Compared to last year, some items were higher and some lower. For example, vendor attendance was lower but ticket sales were higher. The net income was \$170 higher than 2021. The Swap-n-Shop summary is attached. The financial report as of 31 August 2022 is also attached. The treasury is in good shape and revenue is running as projected for the year. Fixed expenses are tracking to have a small surplus by year's end. Large fixed expenses for August included taxes and insurance payments. A motion to accept the Treasurer's Report as presented was made by W3BUW and seconded by K3JAS. The motion passed without objection.

**Membership Report:** Tom, AB3GY, advised there are six new member applications this month. AB3GY made a motion to open the membership rolls for the group. AJ3O seconded the motion. The applications are from:

**Chris Wilson**, W3CDW, an Amateur Extra class ham from Oakmont, PA. Sponsors are K3STL, AC3GB and KC3LHW.

**Dennis Cunningham**, WA3ERT, an Amateur Extra class ham from Greensburg, PA. Sponsors are AG3I, K3JAS and K3STL.

**Patrick Dougherty**, AB3IK, an Amateur Extra class ham from N. Huntington, PA. Sponsors are AG3U, AG3I and EC3O.

**Andy Marhefka**, K3ELP, an Amateur Extra class ham from Vandergrift, PA. Sponsors are K3STL, K3FAZ and KC3LHW.

**Emil Mikulas**, WB3INB, an Advanced class ham from Lower Burrell, PA. Sponsors are K3VRU, K3STL, and KB3EYY.

**Derrick Stewart**, K3DWS, a General class ham from Parker, PA. Sponsors are AC3EZ, K3STL, and WC3O.

AB3GY made a motion to accept the applications, which was seconded by NM3A. The motion passed without objection.

AB3GY made a motion to close the membership rolls which was seconded by W3BUW. The motion passed without ex-

ception. Membership now stands at 157.

**Radio Officer Report:** All the radios are working well with the exception of the 146.04/146.64 MHz main repeater. There was a malfunction last week. The back-up repeater is in operation until the main repeater can be repaired. The back-up repeater does not have Echolink and does not have emergency power capability.

It was noted that the club did not have a DX Engineering banner displayed at the Swap-n-Shop. This will be corrected by Tim and Terry from DX Engineering, with two banners being shipped to the club for us to keep.

We need to set a date and time for a work party to remove the antennas and tower from the estate of Captain Jack, KA3HPM. WC3O will be coordinating.

**Kitchen Report:** The kitchen fund balance is \$121. Kitchen supplies are good.

**VE Report:** At the August VE session we had one new Technician class ham and one Technician upgrade to General class. The next VE session is September 17. We presently have two candidates tentatively signed up for upgrade testing.

**Newsletter:** The August issue of the *Q5er* is out. Jody is looking for newsletter submissions by September 15 for the October issue.

**Facilities:** N3TIN reports that the ladder to the clubhouse attic needs repairing. That work is presently in progress and should be completed soon.

**Building Committee:** Marty, AG3I, reported that now the Swap-n-Shop is over, work in is underway for organizing the lists of equipment, supplies and manpower needed to begin the Phase one construction project.

#### Calendar of Events:

September 10 – School Bus races at Lernerville Speedway.

September 11 – Butler, PA Hamfest.

September 24 & 25 – CQ Worldwide RTTY Contest.

September 25 – The Great Race. Hams needed for communications.

October 1 – SET (Simulated Emergency Test) drill. Activity from the clubhouse.

October 1 – DX Engineering "open box" sale.

October 9 & 10 – PA QSO Party.

#### Old Business:

Scott, AC3GB, thanked everyone for their great support and

hard work which made the Swap-n-Shop a success. Special kudos to John, WA3KFS, for his leadership making it all work smoothly.

### **New Business:**

Scott reminded the club that we normally give a \$50 gift certificate to neighbors Horvath across the street for letting us use their side property for Swap-n-Shop parking. AJ3O made a motion to send the Horvaths a \$50 gift certificate. The motion was seconded by W3CLT and passed without objection.

Don, WA3HGW, passed around a letter to Tom Abernathy, W3TOM, ARRL Atlantic Division Director, thanking him for visiting Skyview for our Swap-n-Shop. The members present signed the letter.

**Weather Night:** Next Tuesday, September 13 will be the return of the Skyview Skywarn Group. A representative from the National Weather Service will be presenting information on CoCoRaHS. All are encouraged to attend, either in person or via Zoom.

**Elmer Night:** No Elmer night scheduled at this time.

**Net Report:** John, WA3KFS, was not present, taking a well-earned vacation at the Outer Banks.

**50/50 Drawing:** The total collected was \$44. The winner of \$22 was Scott, AC3GB. Scott kept \$2 to recoup his expenditure and donated the remaining \$20 to the club treasury.

**Meeting Adjourned:** A motion to adjourn was made by KC3PXQ and seconded by K3JAS. The motion passed without objection. The meeting was adjourned at 8:14 PM.

Respectfully Submitted,

Don Stewart – WA3HGW  
Secretary; Skyview Radio Society, Inc.



### **Some Interesting Technology Coming**

I generally read *eeNews Europe* daily. I get an email each day summarizing articles that they highlight. A lot of it is bleeding edge stuff that is still in the development labs. But some of that stuff eventually makes it into production. That is of more interest to me.

There is some US news in there, but not that much. In the US it seems to be more about acquisitions than research. Seems like a lot of the advanced research takes place in Europe - maybe more government subsidies ??

Two items that recently caught my eye and triggered my reading the full article were "Printable Rechargeable Batteries For The IoT Are Disposable" and "BMW Launches Fuel Cell Powertrain"

With the electric vehicles (EVs) being pushed right now, battery technology is a hot item in the labs. And of course we use a lot of batteries in our portable ham gear. Lithium batteries are currently the hot item right now. But raw material, manufacturing cost, the hazards that they create, and disposability are all issues. So, eventually something else will replace them. Since I work with a 3D printer, I find that concept of being able to 'print' a rechargeable battery to be somewhat amazing. The printed batteries described in this article produce a very low current, and may not scale up to larger currents. But features like them being able to be safely shipped in an uncharged state and disposable are notable attributes.

It is nice to see to see BMW moving forward with getting fuel cell technology into production. While most of the world's automakers are pursuing EVs, I am not getting in line to buy one of them. The long recharge time at public chargers, which are now getting more expensive to use, are a negative when travelling outside of my normal radius. I take long interstate rides on my motorcycle with its four gallon fuel tank, so I know what range anxiety is. And for local driving, the increase in the cost of electricity for home charging is making doing that more expensive. Then there are the restricted power usage days during extreme hot weather. Fuel cell technology is non polluting, and seems like a more practical direction to go. No refueling stations you say? Once there were no public EV recharging stations. Chicken or Egg situation.

Here's a link : <https://tinyurl.com/2kc2yer2>

Jody - K3JZD

De-Soldering Tool Review

de Dan – NM3A

How many of you have ever made a mistake soldering? Or decided to change something later? Or had to repair a board? Probably most of you. All of these have certainly happened to me many times. Over the years, I've tried lots of things to fix soldering mistakes, to change or repair PCBs or even to repair point to point wiring. There are lots of ways to de-solder things and most of them work. Some are better than others, but most can be useful for repairs.

This is a short review and comparison between a few different types that have worked for me. It is going to be mainly a review of through-hole devices. Here is an incomplete list of various ways to de-solder things:

- Heat it up and blow on it or tap it on the table- not recommended
- Heat it up and push a wooden toothpick thru a hole- works in a pinch
- Use a spring loaded solder sucker- usually works, but often awkward to use- works better with 3 or 4 hands

- Use de-soldering braid- really need liquid flux too<sup>i</sup>



- Use low temperature solder- good for surface mount multi pin chips<sup>i</sup> - must remove before re-soldering the part



- Use a hot plate assist- also useful for surface mount parts
- Use a heated de-soldering iron with an attached bulb- even more awkward than the spring loaded solder sucker and works poorly in my hands
- Use a hot air station- mostly for surface mount- specialty tool with many tips
- Use a pump powered de-soldering tool- the *cat's meow* for thru-hole PCBs
- Use a heated spring loaded solder sucker- This is the new kid on the block and the main item I will be re-viewing.

There are others and some are high end specialty tools that professionals use, and they are very expensive. The hot air device needs special tips for each type of component. It's mainly used by professionals to repair factory made boards. You may be able to get an older used one for a reasonable price and there are some new ones available online for fairly low prices. I found an old Atmoscope SMD workstation for a reasonable price. It's helpful for small SMDs and for heat shrink tubing. It is not much help for through-hole parts, though



I do a lot of kit building and some from scratch building. Mostly it is through-hole devices with occasional surface mount devices (SMDs.) I occasionally run into need for de-soldering. Sometimes it is because something was put in the wrong place or backwards. (Of course, I would *never* do that.) Sometimes it is because I decide to modify a circuit to do something better or different from the original purpose. Sometimes it's to repair a failed device. Sometimes it's just because I can!

Whatever the reason, it's good to have a tool that works for this. Back when most things had point to point wiring, I could get away with heating up the joint, unwinding the wire, and blowing on the hole to open it up. Not recommended! Molten, flying solder is not a good idea. And it won't work well for small PCBs. My first tool was a de-soldering iron with a suction bulb attached to a hole in the tip.

This sort-of worked, but the air volume moved was too small, too slow, and the sucked up solder would soon clog the air passage. In addition, it was difficult to keep the tip in place while manipulating the bulb.



That led to a dedicated separate solder sucker such as the Weller 7874B tool or the Edsyn SoldaPullt. These spring loaded suckers provide a significant volume of fast moving air to remove solder heated by a conventional iron. They work very well, but require considerable skill heating the joint



with one hand and keeping the sucker in place while discharging the plunger. Doable, but awkward. Work best with 3 or 4 hands. I used this for many years and still have one and use it occasionally.

Three years ago I bought a Hakko FR-301 tool.



It is fantastic. It heats up in less than a minute, has full temperature control, many available tips, tools to change the tips even when hot, and filters and parts are easily available.



It is easy to take apart and clean or replace the filter.

All you need to do is hold it over the pin in question and pull the trigger. A vacuum pump quickly pulls the solder into the



chamber and you are ready for the next pin. It is so efficient that most parts simply fall out or can be removed with light tugging. I have de-soldered very tight holes and multi-pin chips easily with this device. It's only drawback is the price. At \$260-300 without extra tips, it is very expensive. Tips are expensive too, at \$20-25 each. However, it is a quality unit that should last many, many years. One other downside is that it is so much fun to use, you might take out many more parts than you really wanted to!

There are similar, unfamiliar brands available for \$50 to 150. Availability of parts for and quality of them are iffy. I don't have any experience with them.

Fairly recently, a new type of tool became available. This is a spring loaded de-soldering tool combined with an integral heated solder iron. I recently purchased one, a Tenma 21-8240, to see how well it worked.

They are available for a little as \$11 (newark.com) to \$40 online. These work much like the Weller 7874B or the Edsyn SoldaPullt, but have the iron attached, so you only need one hand to work them. I have been pleasantly surprised; it cleans through-hole parts just as well as the much more expensive Hakko device.

The picture shows a number of parts I removed with it. All of them simply fell out after de-soldering.



Repairing one of my projects with it went just as well as with the Hakko. Now that's really saying something, so what's the catch?

Of course there are a few catches. First, warm up time is much slower- about 5 minutes instead of about one. Second, you have to reset the spring loaded plunger each time you go to the next pin or maybe a second or third time on a particular pin. Third, it has a fixed heating element with no temperature setting. Fourth, replacement parts do not appear to be available, but at this price, replacement may make more sense if there is a problem. Last, It does not come with a separate tool to clean the heated solder tube, but an appropriate size wire can do the job easily. In summary, a little slower than the Hakko, but for the occasional user, this is fine. At this price, it can be in anyone's tool box.

The plunger and vacuum tube can be slipped out to clean out excess solder, re-lube or replace the O-ring, similar to the Weller shown in the picture.

However, on mine, there was no way to disassemble the device. The support structure and plunger sleeve appeared to be glued together. Fortunately, Amazon took it back and I purchased another one. The manual shows how to remove and clean the barrel, so if you buy one, you should not have this problem. Make sure you can return it if you do have a problem.

Bottom line: if you occasionally dabble in non-SMD PCB or point to point wiring repairs, this heated solder sucker is an excellent investment. For a reasonably small price, you can repair PCBs easily without damaging the traces or plated through-holes.

Dan -- NM3A





Go Figure

de Cooky- WC30

In a recent edition CQ magazine there is an interesting article by Tim, N3QE about the most common contest logging software programs used in the CQ World Wide contests. The article surprised me on a number of different accounts.

Logger	World	Asia	Europe	North America
N1MM	52%	38%	44%	62%
N3FJP	5%			20%
Win-Test	4%	2%	8%	1%
CTESTWIN	4%	31%		
UcxLog	3%		7%	
QARTest	3%		7%	
TR4W	3%	5%	5%	
DXLog.net	3%	1%	5%	1%
WriteLog	2%	1%	1%	4%

Table 1. The nine most commonly used contest software logging packages in the 2021 CQ World Wide DX CW and SSB submissions. Worldwide average usage is shown, as well as continent specific usage for three continents. Blanks indicate per-continent usage less than 1%. Data from <<https://cqww.com>>.

Everyone knows that N1MM is the most used contest logging software. I was surprised by the VERY large margin! What surprised me even more is that WriteLog is so near the bottom of the list. Before we started using N1MM at the club we used WriteLog. It is very good contest logging software and if I had to guess, I would have guessed it would be second to N1MM. At the time, it was going through some stability issues and that's when we switched to N1MM at the club. Rich, K3RWN and Mike, K3FH still use WriteLog, and with great success. Super contester Ed Muns, WOYK also uses WriteLog.

So who was second? N3FJP! Scott writes some fine software. I use his Amateur Contact Log software for my everyday logging. While I think the world of Scott and his wife, I don't consider the contest versions of his logging programs in the same league as N1MM and WriteLog. Number two on the list? You go Scott!

I was surprised that Win-Test was #3. Win-Test is used by the likes of K3LR and W3LPL.

Tim, LR likes it because it is extremely stable.

I bought a copy of Win-Test and gave it a try.

Meh.

It is very good, but I don't find it intuitive at all. I need to really look hard to figure out how to do anything. It's really what you're used to. I don't know of any others that use Win-Test. Huh?

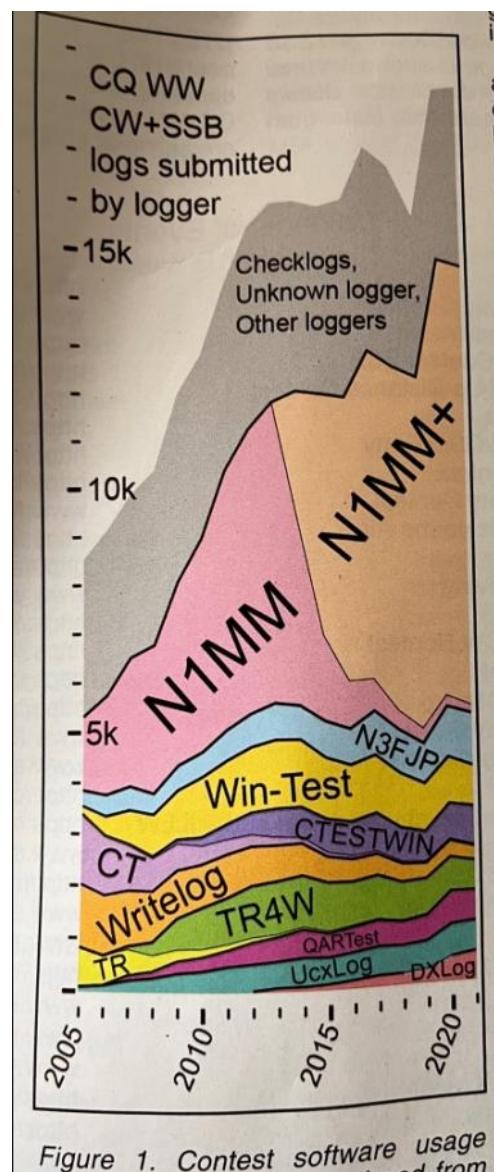


Figure 1. Contest software usage from 2005 to 2020.

So there's the breakdown. Very interesting.

Cooky - WC30

## New Officers and Directors for the Breezeshooters Organization

2022-2023

### Officers

- AG3I - Marty - President
- N3WMC - Bill - Vice President
- K3JAS - Jack - Secretary
- KC3SDJ - Andrew - Treasurer
- KC3GMM - Nate - Checker

### Directors

- KA3UTS - Dan - Director 1 Year  
(Elected for 2 yr term last year so will serve his 2nd year during 2022-2023)
- W3TLN - Tom - Director 1 Year
- KE3PO - Sam - Director 1 Year
- WC3O - Bob - Director 2 Year
- K3SOM - Rich - Director 2 Year
- N3TIR - Bud - Director 2 Year

<http://breezeshooters.org/ns/>

**SSB Net on 28.48 MHz - Mondays - 2100 Local**



On August 2nd, Doc Sam - KE3PO took the Westmoreland Emergency Amateur Radio Service (WEARS) Communications Truck to the Pittsburgh-Plum Tuesday Night Car Cruise at the American Legion Post 980.

That Car Cruise is held every Tuesday, all Summer long. It starts at 1600 hrs local. Attendance is free. Food and beverages are available. Cousin Joe - KC3PXQ was there helping with the cooking, as he usually is. Joe took time out to get into this picture with Doc Sam and Chris - KC3UIJ. (Photo by Paul - AC3IE)

As I understand it, Doc Sam took home the 'Best of Class' trophy in the Communication Truck class.

## Sorry Charlie

If you're old enough you'll remember a commercial for Star-kist Tuna. There was an animated and rather dapper tuna named Charlie who thought that Star-kist was looking for tuna with good taste.

But alas, Star-kist was looking for tuna that taste good. It was that slight change in wording that did not bode well for poor Charlie.

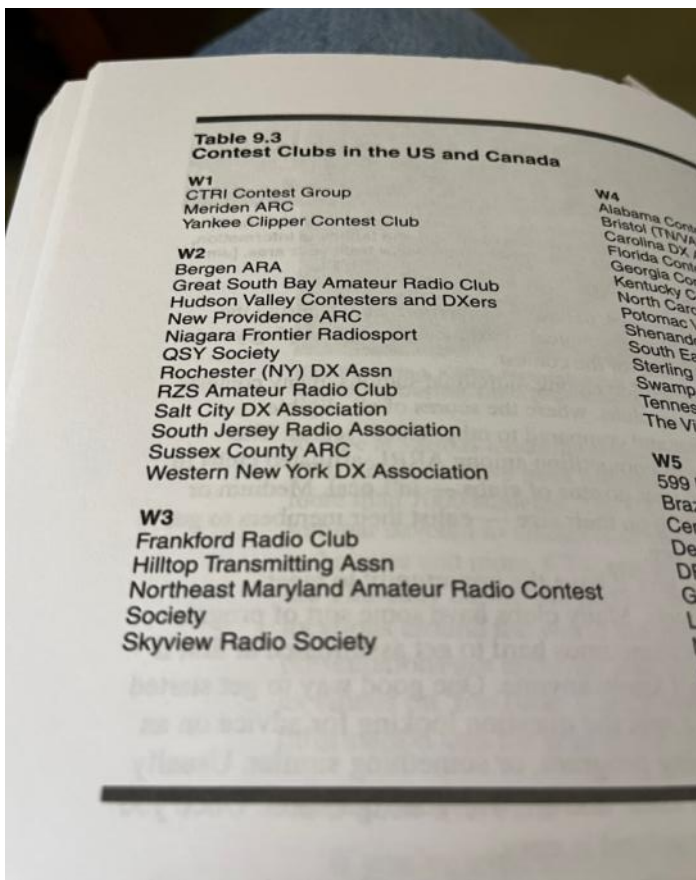
<https://www.youtube.com/watch?v=1UM3JpcBHzY>

What does this have to do with anything?

Good question!

Those of us that attended Contest University at the Dayton Hamvention this year got a packet full of goodies. Among the items was a book written by Doug Grant, K1DG called Amateur Radio Contesting For Beginners.

Good book! Despite the fact that I have been contesting for years I've learned quite a bit from this book. Highly recommended.



## de Cooky – WC3O

Well the other day I was paging through the book when I came to page 9-16. On that page there is a list of contesting clubs in North America and Canada. Looking down through the W3 listing what do I find? Skyview Radio Society! Skyview is a contesting club? It must be so, there it is in black and white!

But is Skyview really a contesting club? Let's look a little closer. So there is Skyview Radio Society in the same list as Frankfort Radio Club. Frankfort is a contesting club. PVRC is a contesting club. Northcoast Contesters is a contesting club. These are all clubs based solely around the art of radio contesting. If you want to hang with the big-time contesters, these are the clubs where they hang.

But is Skyview Radio Society a contesting club? Well, yes and no. Not unlike the tuna commercial, I don't think of Skyview as being a contesting club. I think of Skyview as a club that contests!

I'd bet that PVRC doesn't have kit building nights. I bet Frankfort doesn't help supply communications for various public service events. I bet Northcoast doesn't play as a net control for SET drills.

No, Skyview Radio Society IS what the members of Skyview make it. Whether it's smoke and solder, building antennas, studying severe weather, QRP, POTA, SOTA, DX or our many other interests.

One thing I am damn sure of: They don't cook like we do! As it turns out, we're a food club with a radio problem.

And oh yes - We contest too. We almost always finish in the top 10 and sometimes we even ping 1st place! Not bad for a little podunk club.

Skyview a contesting club?

Sorry Charlie!

## Tornado Alert

de Cooky – WC3O

I didn't buy much at the Dayton Hamvention this year. After so many years in amateur radio I really don't need much. But one thing I did buy was an interesting little gadget called a Tornado Alert, purchased from DX Engineering. I first heard about this device on one of K3LR's new product webcasts. It works on a unique basis.

We all likely have some sort of severe weather alert radio at home, or an app that alerts us to pending weather. All of the alerts are based on information from the National Weather Service.

The Tornado Alert is not.

When I first heard the theory on how thing works it was kind-of an ah-ha moment for me. As you might know, wind makes static. You may note the 64 repeater receiver gets noisy on windy days.

More wind makes more static. If you analyze the static you would likely find it is not just random noise, but it has characteristics depending on what caused it. Lightning would have a characteristic pattern. Straight winds would have a characteristic pattern. I would think that a tornado would have a characteristic pattern. THAT is what the Tornado Alert is listening for! It has nothing to do with the NWS. It is just listening for noise.

Does it work?

Good question. Here is what I have seen so far. If there is lightning in the area the display on the unit says LIGHTNING! I see that all the time. However, not long ago we had a hum-dinger of a storm that came through the area. The alarm sounded and the strobe light flashed. Scared the crap out of my wife! (I was at work at the time) The display said TORNADO RISK!

Was it right?

You may recall this storm. It traveled through Natrona Heights and Lower Burrell. It took down Bob, K3RAW's Hex Beam off of his tower and did lots of damage to Rich, WQ3Q's trees and property, as well as lots of other damage in the area.



Based on this storm, I'd have to say the unit works as described. There is one other alert above TORNADO RISK!, and that is TORNADO!

I would have to say if you have one of these units and it warns you of a tornado, you'd better get your biscuits to a safe location. It's close.

Cooky -- WC3O

## K6ARK Balun Kit Build

de Dan – NM3A

I just built a 1:9 balun that I got from Adam, K6ARK, at FDIM.



Adam's site ( K6ARK.com ) shows what all can be done with this kit as well as showcasing his fun with SOTA activations and miniaturizing Pixie type transceivers. It's a very small balun that mounts right on a PC Board (PCB) with a BNC connector. This is a fascinating design that can be built as a 1:49, a 1:9, or a 1:1 balun.

Adam is really into SOTA activations and is also REALLY into small rigs. He has built functional versions of the Pixie transceivers that are as small as a thimble! This balun would dwarf some of his transceivers.

The photo shows the parts that come with the kit. It can also come with a female BNC instead of the male BNC shown. Note the tiny PCB. This has plated thru holes for the BNC, the toroid transformer, the antenna connections as well as the tiny SM capacitor seen in the center of the kit photo. It comes with shrink wrap to finish your masterpiece. The included coil form can be used to make a multiband antenna out of a 40 meter EFHW. Unfortunately, the neat included sticky label is way too big to put on the final product!

The kit came with 2 toroids that will nest. If the two toroids are nested and then wound as a single toroid you can use it for up to 20 watts CW or 40 watts SSB PEP. If you just use the small toroid alone, you can use it for up to 5 watts CW or 10 watts SSB PEP.



This design puts the balun right onto the BNC connector using the tiny PCB. Instructions on the K6ARK.com site are simple, but the pieces are small. The hardest part is probably soldering the capacitor onto the PCB.

Fortunately, for me, this capacitor is only needed for the 1:49 balun, which I did not build. I built mine as a 1:9 balun for 20 watts CW to use with my 85 foot wire antenna with a 17 foot counterpoise. That 1:9 ratio converts the 450-500 ohm impedance at the End Fed Non-Resonant Wire to something close to the 50 ohm impedance that your radio wants to see at its coax connector.

### Construction

I began by cutting the polystealth wire into two lengths. I made them 60/40%. The longer piece is for the antenna wire and the shorter piece is for the counterpoise. These are soldered to the PCB through the PCB strain reliefs. I put thin shrink wrap on these wires to strengthen them.

If you are using a 12 foot or longer length of coax, you may choose not to use the counterpoise for QRP work. However, you may have RF feedback problems with higher power without any counterpoise. Using an additional 1:1 balun may reduce the RF feedback too.

The toroid was wound next. I used both toroids nested and simply wound it as if it were a single toroid. I did not glue them together as the wire holds them in place. It is an autotransformer with a 10:30 turns ratio to provide a 1:9 impedance transformation. You have to take care

to wind the toroid in a specific way to allow for correct mating with the PCB.

Once the toroid is soldered onto the PCB, the BNC is then placed onto the PCB and it is soldered in place. The photo shows the completed toroid and the BNC soldered to the PCB.



The balun was initially tested with a 470 ohm resistor across antenna/counterpoise terminals. The balun was swept from 3 MHz to 30 MHz. The results showed less than 1:1.5 SWR within all of the ham bands in this range. Using a 510 ohm resistor showed less than 1.7:1 across the same range



If you are using just the small toroid, the supplied shrink wrap will hold all of this together. As I used the larger nested toroid, the supplied shrink wrap did not hold the toroid and the PCB together all that well. So I used hot melt glue to secure the toroid to the PCB. There are probably better materials to use, but at HF, the hot melt glue does not seem to affect inductance or turn capacitance significantly. After this, I used two more pieces of shrink wrap to secure everything together better.

The connector wires were further shrink wrapped to protect them.

Alligator clips were soldered and crimped to the ends and more shrink wrap secured them to the wires.



I left a BNC barrel adapter attached so that I can easily connect my regular coax cable extension. A female BNC connector here would have eliminated the need for that.

Testing it with my 85 foot wire in an inverted V configuration with a 17 foot counterpoise showed well under 2:1 SWR across the 80, 40, 30, 20, 17, 15, 12, and 10 meter amateur bands. Success! This makes for a compact and lightweight portable QRP antenna for the HF bands.

Dan - NM3A

Ahhh the Alpha 87a

de Cooky – WC30

**Key Down How Long?**

Back in 1977 we ran an ALPHA 76 for eighteen days with a brick on the key at a full kilowatt. To emphasize that ALPHAs were getting even better, we recently fired up a new ALPHA 76A at maximum legal power and let it operate twice as long—more than 37 days—900-plus hours!

WHAT MAKES AN ALPHA SO GOOD THAT WE DARE WARRANT IT FOR EIGHT TIMES AS LONG AS OTHER LINEARS. SPECIFY NO TIME LIMIT AT FULL RATED POWER, AND CONFIDENTLY PUT A BRICK ON THE KEY FOR HUNDREDS OF HOURS? Above all, such spectacular durability depends upon a truly rugged transformer and excellent cooling.

ALPHA TRANSFORMERS ARE LEGENDARY. Every one is designed and built to handle full rated power CCS—in practical effect, forever. As ETO's remarkable two year factory (limited) warranty suggests, they virtually never fail.

ALPHA 76A possesses perhaps the best cooling system yet encountered. After prolonged use, the amplifier is barely warm to the touch... ambient noise is barely audible.

ARP adds, "Service is spectacular... Alpha gives a full 24 months (warranty) evidence that they really stand behind their product!" And the editor of a prominent DX newsletter recently cited ALPHA amplifiers as notable examples of equipment designed by experienced operators for real-world use.

It's been said that forethought is the only sure cure for buyer's remorse. We couldn't put it better. Every ALPHA linear amplifier is meticulously engineered and built to handle continuous operation in any mode, at maximum legal power, with no time limit. The factory warranty protects you for years, not months. Isn't that food for forethought?

Elechem Technological Operations, Inc.  
 3601 7th Avenue, Suite 100, Boulder, CO 80517  
 (303) 440-1813

**Alpha!**

A FIVE YEAR TRANSFORMER WARRANTY? Yep. The Hiperstat® transformer design used in ALPHA models 76CA, 76, and 770x is so tough that we've extended the warranty on transformers in those specific models to five years!

SUPERB COOLING DESIGN IS ANOTHER ALPHA TRADITION. AMATEUR RADIO PROFILES, the new Consumer Reports type publication, says, the

**ETQ**

Alpha currently makes the 9500, the replacement for the 87a. People like the 87a better. (The 9500 has less overhead with the single 3CX1500 [8877] tube rather than the two 3CX800 tubes in the 87a - Plus the 9500 uses a relay for T/R switching so there is a small amount of T/R noise)

The 87a is amazing, especially when you consider when it was manufactured. How do I know? I own one.

**Down side:**

When you consider when it was manufactured! It's getting older every day. There are only a handful of people on the planet that know the 87a well. 3CX800 tubes are very expensive. The old EIMAC tubes that came with the amp were fantastic and the 87a has very good self-protection. Most 87a amps still have the original tubes installed. But again, they are getting old.

**Basically, how does the auto-tune system work?**

While there are no tuning knobs on the 87a, there are up and down buttons for the TUNE and LOAD adjustments. These buttons control stepper motors for the two tuning capacitors. In all there are three stepper motors, the last one being for the band switch.

Think of the band settings as the radio station presets on your car radio. You personally set the memories to the radio stations of your liking. There are presets for the two capacitors per band, then each band is broken up into five subsections - From the bottom of the band to the top of the band. If you send even a very short DIT in CW the amp will measure the frequency and VERY quickly adjust the three stepper motors to the appropriate section of that band's preset positions. I'm talking in one second OR LESS!

You can still transmit while the amp is switching bands/sections. The amp is automatically taken offline and put back online after the new settings are complete!

Keep in mind that you are not the one that makes the initial settings. These are all done at the factory and the amp is ready for action when you receive it. If the amp is not perfectly tuned for your specific antenna you can

Ahhh the Alpha 87a. What can I tell you about the 87a.

**Plus side:**

What a machine. It is an AMAZING box. It was WAY WAY before its time. Auto band switching is done in 1 second or LESS. Completely silent T/R switching. 1500 watts without even thinking about it. With the Alpha Max firmware - It auto-correctly tunes the amp per the frequency/antenna load and remembers it for next time.

It is built with all first-rate components. At the time there was nothing even remotely like it on the market. Even today there are only a couple amps that can do what the 87a does. (Minus the new solid state amps, which are nice but I doubt they are as rugged and forgiving as this one is.)

touch up the adjustments with the TUNE and LOAD up/down buttons. The amp will remember those altered adjustments for the next time you go to that section of the band. There is also a default button to reset things back to factory settings.

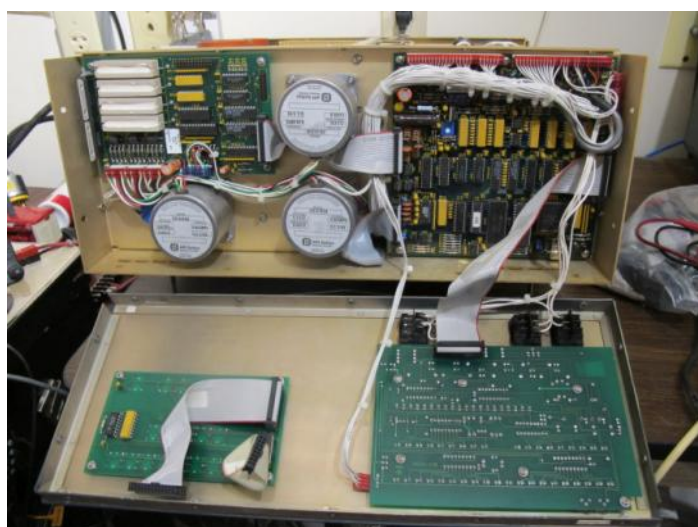
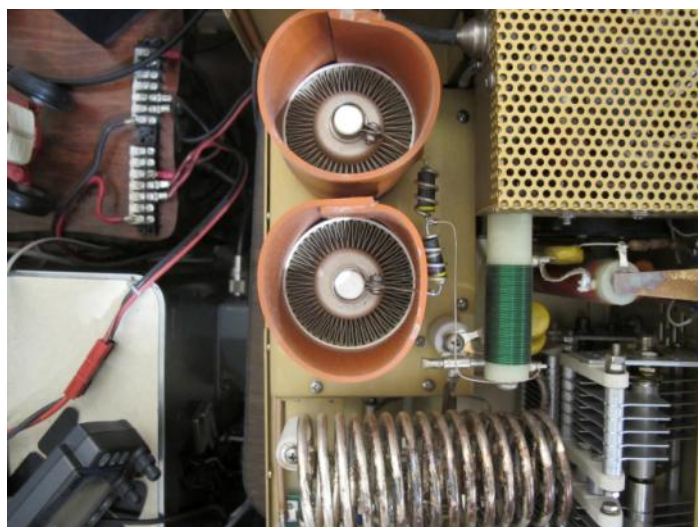
That was the extent of the adjustments of the early 87a. Later, Alpha released an "Alpha Max" firmware update that consisted of a replacement PROM. With the Alpha Max firmware upgrade the amp would ACTIVELY monitor plate, grid, SWR, drive and other parameters and correctly adjust the amp for maximum efficiency while you're talking!

I bought my 87a used years ago. I've had one problem that I had to send it back to Alpha. It turned out, the grease on the shaft for the band switch dried out and got stiff. It became too hard for the stepper motor to turn the shaft. Glen at Alpha cleaned up the old grease and replaced it with new. Works great. The 87a does have a self diagnostic system that tells you where it is seeing a problem. There is also software that you can see many parameters within the amp. Again, way way before its time. There are a lot of things written about any common issues.

There is a six-part vid on YouTube by the guy that designed it, Dick Ehrhorn, W4ETO. It's kinda dry but worth checking out. It was recorded on old 8mm film!

<https://www.youtube.com/watch?v=ItZcuW7fb2U>

### Here are some interior photos:



You can see the 1980's technology !!



### Other Alpha 87a stuff:

Alpha has a long proud history. Their amps are all first-rate. They've gone through a few changes in ownership over the many years. All have been good. However, the current owner... Is interesting. But Alpha is still in business. I just hope it stays that way.

There is an old Alpha ad that says "There's nothing like an Alpha". It's true. An old Alpha ad showed a CW key with a brick on it, and a BIRD watt meter showing 1000 watts - Implying that you could set the amp to put out a constant 1000 watts, go away for a week, come back and it is still putting out 1000 watts with no end in sight. (At the time of the ad the FCC legal limit was 1500 watts INPUT - So legal limit was 1500 watts input, minus losses in efficiency) The more modern Alpha amps will put out 1500 watts all day all night.

### On the other hand:

When you look at the new solid state amps from any manufacturer, there are only a handful of people on the planet that know them that well also.

I'm old school and still like the old tube amps.

The new solid state LDMOS amps are pretty nice, though. But they don't have much history, yet. I only know of one solid state amp that is conservatively rated at 1500 watts. For the rest, 1500 watts is really pushing it.

And with enough fan noise to keep your neighbors awake!

The 87a is truly amazing, and to consider it was designed back in the 1980s!

That's what I thinks anyways

Cooky — WC30

### DX Engineering Visit

Many thanks to all that came along to DX Engineering and K3LR on Saturday, August 6th.

Big thanks to Tim, K3LR and everyone at DX Engineering. It was a great day.

Cooky - WC30



**Left to Right: N2MA, AG3I, K3LR, AC3IE, WC30, KC3SDJ, KQ3S, K3ES, W3BUW, KC3PXQ, K3STL, AJ3O, KC3UIJ, N3WMC, NM3A, KF3C, KB3EYY, K3SBE, K3FAZ, K3WM.**

**N8AMY Photo**

So, if I get a shipment from DX Engineering, and the DXE Stickers are wrinkled, should I sent the whole order back as damaged ??



## Portable Antennas and Operations

de Dan – NM3A

After the Support Your Parks weekend, I found some improvements to be made to my portable and mobile antennas. The mobile antenna had too high an SWR to allow full power out on most bands from my IC-7100. That made SSB contacts very difficult. Essentially they were QRP instead of 100 watts. The solution was very easy, if moderately costly. I simply installed an LDG Z-100A tuner. Bingo, problem solved!

For a portable antenna, I was using End Fed Half Wave (EFHW) antennas with a 1:49 balun/tuner from Pacific Antenna



I have wires cut for 40, 30 and 20 meters along with their counterpoises. They are wound on lightweight plastic winding forms SOTA Beams that I got from DXE. I also made some myself from 1/4" luan plywood. They work great.



The issue is that they are single band antennas. So, when I worked out a particular band, I needed to take down one antenna and deploy another. Often times, I just pack up and go home, as that is somewhat time consuming and also not something I want to do in the dark, especially if I'm camping in a strange place. Rain wasn't an issue that weekend, but it would be another deterrent to changing antennas. It also might be a deterrent to staying out! Linked EFHWs work well, but still need to be partially taken down to change links.

The fix for me was to change antennas. Richard, N2GBR, told me about his SOTA go-to antenna last year. It is an 85' End Fed Non-Resonant Wire (EFNRW) antenna with a 1:9 balun. He even gave

me 85 feet of the wire he uses that I have finally put it to good use. This is often called an End Fed Random Wire (EFRW) antenna, but it really isn't random. You have to be careful not to have close to a multiple of a half wave length on any band you want to use. There are tables to look up what length wire works with a 1:9 balun. (One such table is at : <https://udel.edu/~mm/ham/randomWire/> )

There are lots of options anywhere from 35 feet up to 135 feet that allow you to work all the HF bands and possibly 160 and/or 6 meters. Eighty five feet gives 80 through 10 meters, with the possible exception of 60 meters.

The antenna I chose was 85 feet of thin, insulated wire with a separate 17 foot counterpoise.



At QRP power levels, you can usually just use the outside of the feedline braid (at least 12 feet long) instead of a counterpoise. At higher power levels that just invites getting significant RF into your radio. A counterpoise reduces that problem and a 1:1 balun in the feedline would reduce it even more.

I terminated the antenna and counterpoise with spade lugs to connect them to a balun. The other end was terminated in a small loop to make it easy to pull the wire up into a tree or other support. With the throw line, weight, and balun, it weighs just 1 pound.

A 1:9 balun is needed to convert the approximately 450-500 ohm impedance of the antenna to a 50 ohm feedline. They are available from LDG or Balun Designs or many other places. I chose a QRP version from K6ARK.com Portable Radio. (See accompanying article in this issue.)



This balun is good for 3-30 MHz and possibly a bit more. This is great for portable use, as it is very small and lightweight. The completed antenna and balun should be less than 2:1 SWR on most portions of most HF bands.<sup>v</sup> Similar results can be had with 41/17 feet for 40 through 10 meters.

Another issue I found was my MFJ-259 antenna analyzer. It does work fine for tuning antennas up in the field. However, it is very heavy and bulky. Not fun for lugging around in your backpack for on foot activations. So I looked for a smaller and lighter solution. Lots of good options out there, the RigExpert Stick among the best for size, weight, and ease of use. However, I chose a NanoVNA (the real small screen one) due to its really small size, weight (8 oz with connectors, cables, adapters, and case), and functionality.



One drawback of this small NanoVNA is that it is very difficult to read in full sun, but I have a functional work around for that.

This leaves me more room for rigs, batteries, and ,of course, food, and drink for longer hikes. If you have a rig with an internal tuner or with power fold-back protection, the EFNRW/balun may be all you need. However, if you have a rig with no protection, it is good to at least check to make sure your SWR is

reasonably low (at least less than 2:1. If it is not, use a small tuner to tweak the match.

My throw line was another issue. I use high visibility mason's polypropylene line with a 5 oz sinker as a throw weight.

I find it works great for getting a line up high in a tree.

But I did not like the mason's winder I was using. It meant I had to pull the weight back through the tree if I missed or when packing up. This sometimes would hang up in a tree and I would need to break the line and occasionally I'd lose my sinker.

Marty, AG3I, suggested a fixed length of line, such as 120 feet, and never pulling the weight back thru the trees. I took his advice and this works much better. I added a SOTA Beams plastic winder from DXE to store



the mason's line on. Many others use an arborist's throw line which works well too. The arborist's throw line is a bit slipperier, but the mason's line I use is plenty slippery and it's lighter and less bulky to store in my back pack.



For many POTA activations, you can put whatever in a vehicle. However for portable, on-foot activations, that's not feasible. I often take a small portable chair (2 lb)

I will occasionally take a 20' push up fiberglass mast (2.75 lb) to support my antenna where trees aren't a good option.



An optional antenna that I occasionally use is an extremely compact 20 and 40 meter vertical (12 oz) that Curt, WU3U made. It is similar to this: <https://qrpguys.com/ds1-antenna>. It mounts on a very lightweight (1.4 lb) tripod.



It is not nearly as efficient as longer antennas, but it is extremely compact and easy to set up with no requirement for supports or tuner.



My typical backpack now weighs about 12 pounds with 2 QCX radios, key, headphones, log, clip board, antennas, cable, tuner, stool, and battery. Some water and snacks might add another couple of pounds.



Dan - NM3A

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## Skyview 2022 Swap & Shop

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The 2022 Skyview Swap & Shop is now in the history books. I would like to thank everyone that helped support this event. As you well know, it takes many hands to pull off this fund raising event.

The set-up on Saturday went very well. Many members had showed up well before the 10:00 A.M. starting time, and having lots of helpers sped up much of the heavy lifting, e.g. the big tent set up and moving those old heavy yellow wooden tables.

The completion of the set up and the tear down were both done in record time. I could not have asked for any better group of hard working hams.

On Sunday morning, the weather was great for a Summer hamfest - perfectly clear skies. As I arrived at the club at 6:30 A.M, there were several members already getting things in shape. We were quickly set up and ready for business well before the 0800 start time It was nice and cool then, but the morning sun quickly warmed things up.

Fortunately, Skyview has some of the most loyal hamfest attendees. Compared to last year, our paid attendance (approx. 200) was down just a little bit. But our net earnings were a little bit higher than 2021 thanks to the brisk sales of our main prize tickets and Begali Key tickets. And, as usual, our food was great and was very popular with all attendees.

The lucky prizewinners are listed to the right.

The excellent co-operation and support from our membership and our many guests made this event a very pleasurable experience once again.

Again, I would like to thank everyone that helped in any way to make this year's Swap & Shop a success.

*John Italiano*

WA3KFS

Skyview Swap & Shop Chairman

### Door Prizes:

**8:00 AM Skyview Tumbler** (tnx [createdbyamy.com](https://www.createdbyamy.com) )  
Don Stewart - WA3HGW

**8:30 AM Pass your Technician/General/Extra set of books** (by [easywayhambooks.com](https://www.easywayhambooks.com) )  
Bob Reisenweber - W3BBO

**9:00 AM Pass your Technician/General/Extra set of books** (by [easywayhambooks.com](https://www.easywayhambooks.com) )  
Duncan MacGregor - KF6YYT

**9:30 AM \$50 ARRL Gift Certificate** (tnx W3BC/ARRL)  
John Bixler - K3EAS

**10:00 AM \$25 ARRL Gift Certificate** (tnx W3BC/ARRL)  
Mike Recklitis - KC3CBQ

**10:30 AM \$25 ARRL Gift Certificate** (tnx W3BC/ARRL)  
Gary Rindfuss - KC3KSC

**11:00 AM J-Pole Antenna** (tnx Art Mueller WA3BKD):  
Harley Corbin - KC3OCC

### Main Prizes:

**1. Yeasu FT-65** (tnx Greg Dober N3MVF)  
Dennis Aheimer - K3YN

**2. \$100 DX Engineering Gift Certificate** (tnx DXE)  
Rich Gubanich - K3MJ

**3. \$100 DX Engineering Gift Certificate** (tnx DXE)  
Rich Gubanich - K3MJ (Yes, Rich had two of his tickets pulled back to back !!)

**4. Pro's Kit Soldering Station** (tnx Greg Dober N3NVF)  
Marty Newingham - AG3I

**5. PEET Brothers Weather Station** (tnx PEET)  
Bill Hastings - KB3TBT

**6. Isotrol 20 Meter Antenna** (tnx ???)  
Rich Soltesz - K3SOM

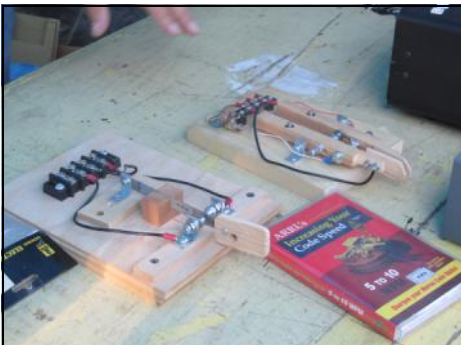
**7. ARRL Handbook Set** (tnx W3BC/ARRL)  
Bob Steele - N8HGL

**Begali Key** (tnx Begali Keys)  
Cousin Joe Poli - KC3PXQ

**50/50: Raffle - \$75** : Mark Benson - KM3P

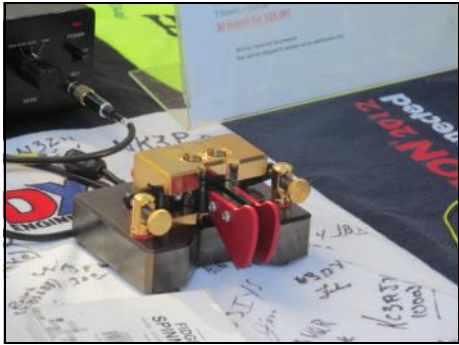
de John - K3STL (aka Tall Guy)

# Q5er – The Official Newsletter of the Skyview Radio Society



Photos courtesy of and © Copyright 2022 Ron Notarius W3WN

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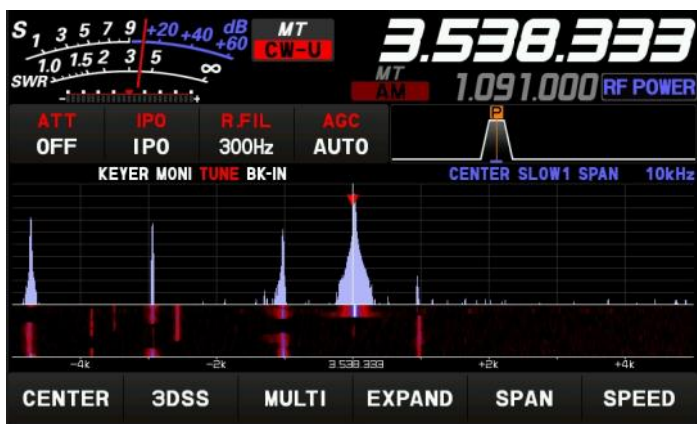
# Q5er – The Official Newsletter of the Skyview Radio Society



Photos courtesy of and © Copyright 2022 Ron Notarius W3WN

## Yaesu FTDX10 Transceiver Review

de Mike – K3FH



I recently decided to purchase a Yaesu FTDX10 transceiver. Prior to my decision, I read the QST review and Googled other reviews. Reviews are rather subjective, because it depends on the writer's previous experience with HF rigs, and his/her priorities of what the radio should be. That might sound like a wish-washing statement, but when making a major purchase you must decide what's a necessary feature, what's important and what's nice. You weigh those priorities with your budget and how your potential purchase compares with the competition.

I live in suburban Pittsburgh, around lots of other homes, and use vertical antennas. So, my priority when buying a radio is receiver performance, especially for CW which is my go-to mode. I compared the FTDX10's receiver to my Icom IC-7300 and my Kenwood TS-590s. Both have excellent filtering, and I was satisfied with the performance, but I wanted to see if I could do better without breaking the budget.

I frequently do Search & Pounce (S&P) when I do casual contesting, that is, I tune the band looking for CQers as opposed to "running" by calling CQ on a single frequency. When you S&P you need very good filtering to narrow the receiver passband. You also need good noise reduction. These features also are super important when working DX.

I chose the FTDX10 after reading Rob Sherwood's performance rankings which listed it as the third best receiver among today's radios. At just under \$1,400, its

receiver is comparable to much more expensive radios. In addition, there are some nice features which make operating it a lot of fun, although it takes awhile to learn all the steps needed to set it up.

The operating manual is very good, and you get a real printed manual! You can also download the original updated PDF copies as they are published from the Yaesu website. As a user of other Yaesu radios in the past, I have found the website to be excellent and my favorite among the big-3 (Yaesu, Icom and Kenwood). You can register your radios there and find quick access to FAQs, downloads, etc.

In addition to the Yaesu manual, I strongly recommend *The Radio Today guide to the Yaesu FTDX10* by Andrew Barron. It's a great supplement to the manual, and can be read like a novel without being in front of the radio. It was very helpful to me in getting the CW and RTTY settings and connections correct. There is also an excellent *Radio Today guide to the Icom 7300* so if you have this radio, spend a few bucks and get the book.

The first task upon turning on the radio for the first time was to download the USB driver to set up the radio's virtual serial ports. There are two ports which show up after installation of the driver. One is the Enhanced Port, which is the communications port for logging programs, similar to the port on the IC-7300 and the TS-590S.

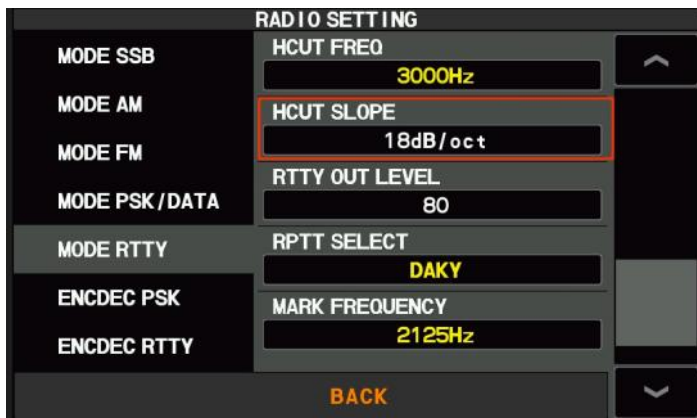
The other is a Standard Port, which you can use to key the radio from a computer using a contest logger like N1MM or WriteLog. After reading the manual and the Radio Today Guide section on CW, and doing some searching on the FTDX10 groups.io site, I figured out how to do it. So, it's nice to be able to key the rig in CW mode without using a RigBlaster or similar interface. So immediately that was one feature I liked, and not available on the IC-7300 to my knowledge.

I also like to use FSK for RTTY, which requires keying two pulses alternately for Mark and Space. If you like to use AFSK for RTTY that is also possible, just as it is for almost all modern rigs. I use WriteLog as my logging program, and it uses MMTTY as its soft keying interface. I have

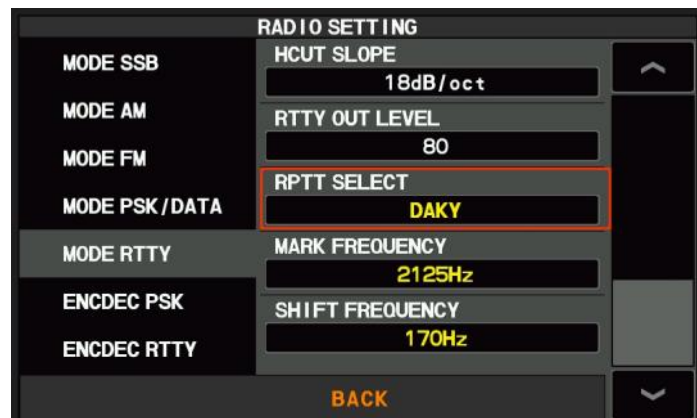
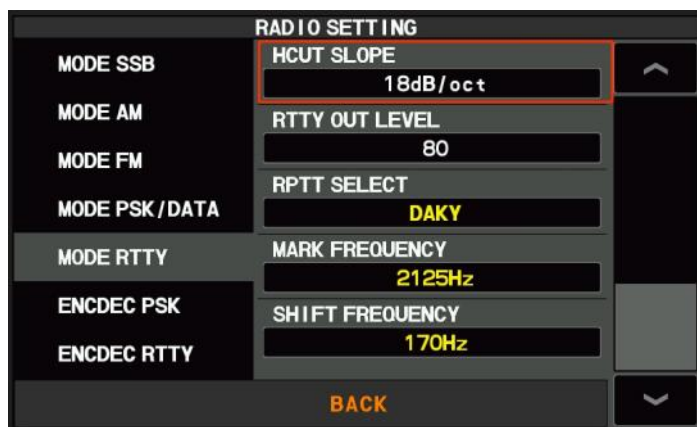
also keyed the rig through a true RS-232C serial port on my Dell desktop, using a RigBlaster Plus as my interface.

Again, by reading the manual and the *Radio Today Guide* and some searching on the internet, I was able configure menu setting to directly key FSK to the radio without needing the RigBlaster. Even though it's okay to do this, after consulting with some RTTY experts, I found there can be timing issues with the Mark and Space RTTY characters being directly provided from a PC. That "Jitter" in the PC based timing of the characters can cause receiving errors at the other end.

You can read about jitter if you're into RTTY, or just take my word for it, it's better to use an interface like the RigBlaster and hard-key through a cable into the back panel of the FTDX10. I decided to buy a MORTTY interface to replace the RigBlaster I've used for many years. I was able to get it connected and it has worked fine.



So compared with the IC-7300 and TS-590S, the transmission of CW and RTTY is a little more complicated to set up, but once set up it works great!



The rig has a combination of push buttons, encoders (tuning dial and function and an outside ring), and touch-screen functions. If you're familiar with the IC-7300 touchscreen these are easy to use. I will state, however, that the IC-7300 is much more out-of-the-box plug & play than the FTDX10. The multitude of adjustments on the FTDX10 is more like the Kenwood TS-590S than the 7300, so it takes a lot of reading before getting things the way you want.

But other than setting up CW, RTTY, and Data Modes (which I have no clue how to do), you're probably safe using the default values. You'll find many of the functions like those in the 7300, there's just more of them.

One of the criticisms of the FTDX10 is that the front panel is very crowded with buttons, and some are in the wrong place!



The adjustments for AF/RF Gain and the DSP filters, are done with dedicated knobs. But many of the adjustments are made with the Function knob and the outer ring of the Tuning Dial. It's confusing to learn what does what function, but after you climb the learning curve, you'll find the functionality of all these controls adds a lot to the pleasure of using the radio.

My ergonomic preferences among the three radios I mentioned would be (1) IC-7300, (2) Kenwood TS-590S and (3) FTDX10. If you're looking for simplicity and quality ergonomics the 7300 is hard to beat. But if you're looking for added flexibility and features the FTDX10 would be #1.

There are a lot of reviews on the web for this radio, and I don't need to repeat those impressions. I pretty much agree with the consensus.

The best part about this radio, and why I decided to buy it, is the receiver and the filtering. Unlike a standard SDR as the IC-7300 is, the receiver is a hybrid. It employs roofing filters to provide more selectivity and the super capability to pick out weak signals. The radio comes with roofing filters of 12KHz for AM, 3 KHz for SSB and 500Hz for CW/RTTY. As an option, there is a 300Hz CW roofing filter that is user-installed plug-in crystal filter. I purchased the 300Hz filter, and it made a big difference in quieting weak CW signals.

Since I usually run a linear amplifier at 400-500 watts when contesting, I found that I could work pretty much everyone I could hear, and I could hear a lot more with this rig than ever before. With the 300Hz filter I could set the DSP filter down to 100Hz and hear crystal-clear CW with no ringing or echoes.

Those are my initial impressions, I am still learning a lot about the radio, and I expect as time goes on, I'll find other likes and dislikes, but overall, I am very satisfied with my purchase.

By the way, if you'd like a good article on receiver technologies and the advantages of each, check out <https://www.onallbands.com/superheterodyne-sdr-hybrid-sdr-which-is-best%EF%BB%BF/> This a great write-up by Mark Haverstock, and well worth your time.

Mike - K3FH

### Clubhouse Expansion



## A Ham Radio Journey

de Andrew - KC3SDJ

Ed : The Prequel can be found here :  
[http://www.nelis.net/K3JZD/Files/Skyview\\_Newsletters/Skyview%20Q5er\\_202202.pdf](http://www.nelis.net/K3JZD/Files/Skyview_Newsletters/Skyview%20Q5er_202202.pdf)

See Page 25

As many of you know, I first met the wonderful members of Skyview Radio Society around May 2021. It was around this time that I was studying for and eventually passed my Technician level exam, and obtained my call-sign and license on May 17, 2021. I knew this hobby would be fun, but little did I know just what I was getting involved with. On September 11, 2021, I obtained my General class license. This would be the start of true joy and a love of ham radio!

I knew that I preferred communication by HF rather than VHF/UHF from my times of operating under the direction and guidance of Bob, WC3O, and Marty, AG3I at the club. Now that I had my end-fed wire strung up outside of my apartment and an IC-7300 on the desk, the excitement became real, and my first contact was a 20 meter phone contact into Italy! I had great fun operating from our apartment, despite my limited abilities and antenna options. I was even able to obtain my mixed mode WAS award, and 96 confirmed countries toward mixed mode DXCC, all from the apartment!

It also wasn't too long before I discovered the joy of POTA, and now I regularly hunt POTA stations and find that more exciting than contesting.

My first POTA activation took place in entity K-1387 Moiraine State Park. I packed up my IC-7300 and Bioenno battery into my Pelican case, put up my Chameleon MPAS Lite antenna in its vertical orientation, and laid out four 25-foot-long radials, and I was off! I also participated in the most recent support your parks weekend, and made 300 contacts during the weekend using both phone and FT8 on 40 and 20 meters. POTA sure is a ton of fun, and I love being able to use my 7300 for activations.

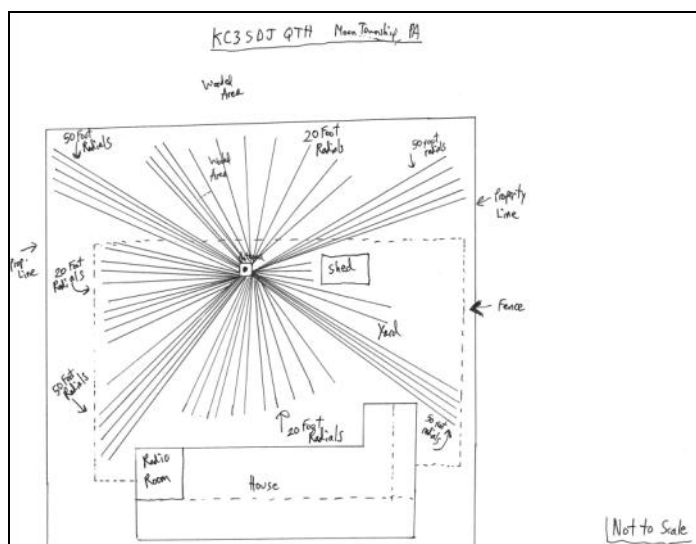
I have now entered another chapter in both life and amateur radio – on June 17, 2022, my wife and I closed

on our first home in Moon Township. I knew it was a good house when I realized I could hit the big 64 repeater from the driveway! While my wife pondered paint colors and furnishings, I pondered antennas.

I promised my wife that I wouldn't "ugly" the place up with a big tower and beam, so I settled on a Hustler 6BTV antenna due to its rave reviews on eHam and also my mild fascination with verticals. I liked its slim form factor as well.

While waiting the month and a half for the antenna to arrive, I started on the large tasks ahead, which included drilling a hole into the foundation to pass 1-inch Schedule 40 PVC conduit, which would house RG-213 coax (about 90 feet total). I wanted to make the setup "QRO capable" in case I add an amp later on.

After getting the coax from the radio room (spare bedroom) to the basement and out of the house, I installed a ground rod and lightning arrestor inside of a weather-proof 2-gang electrical box outside. The conduit proceeded underground and up the hill to the antenna site. This work was made far easier by renting a trenching tool, which effortlessly dug a 2-foot-deep trench that was only about 2 inches wide.



**Proposed Radial Plan**

I was getting close to completion! I bored a 3-foot-deep hole and cemented a galvanized support post into place, and secured my DX Engineering radial plate to it. I then spent the next two days laying radials....LOTS of radials!! I did so by mowing the grass very short, and then stretching the radials out and securing them with lawn staples so that the grass would eventually “consume” them. It has now been a month, and you have to look quite hard to see them. I settled on 60 radials – 20 at 50 foot length, and another 40 at 20 feet long. Why? I was trying my best to maximize performance with the somewhat limited yard space I have. I figured the 20 radials at 50 feet would do well on the narrow portion of 80 meters that the 6BTV provides, and that the longer radials would also help greatly on 40 meters. Then the rest of the radials would work well on the higher frequency bands.

At long last, my Hustler arrived, and I went to work assembling it being careful to not ruin everything around me with Jet Lube.



After assembling and tuning, I was on the air, and my first contact was a German phone station on 40 meters in the evening! I received a 59+10dB report! Surely the kind German could “hear” my ground radials. The antenna works incredibly well on all advertised bands, especially 40 meters – my new favorite band. South African FT8 contacts are common for me on 40 meters, and I even get into Europe on 80 meter FT8 (the digital portion is where I set the 80 meter whip on the Hustler).

I have been breaking QRO pileups on all bands when they are in decent shape, using only 100 watts! Wow – just when I thought this hobby couldn’t get any more fun!

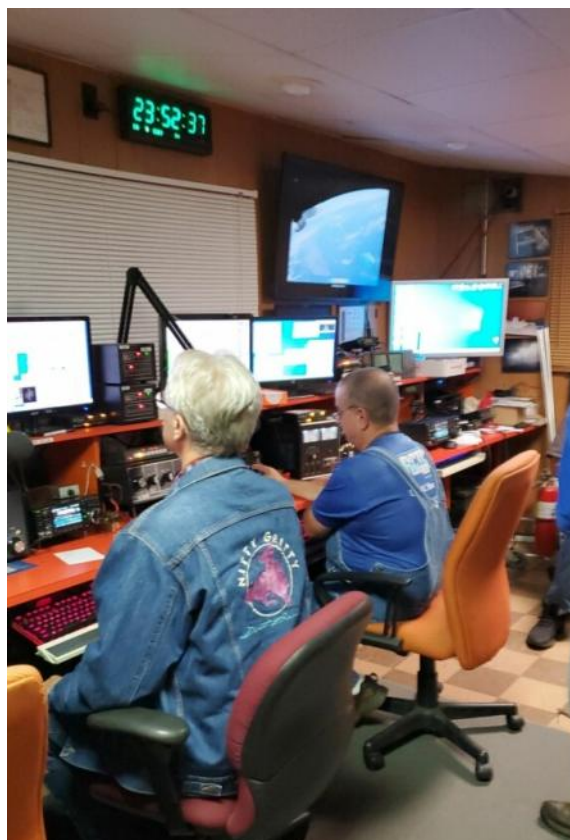
73,  
Andrew, KC3SDJ

**CQ WW RTTY Contesting - 25-25 September 2022**

Band	QSOs	State/Prov	DX	Zones
80:	359	50	35	11
40:	951	54	77	23
20:	914	51	80	26
15:	470	37	71	22
10:	171	31	23	14
Total:	<b>2865</b>	<b>222</b>	<b>286</b>	<b>96</b>
Total Score	<b>3,665,676</b>			

**Some Old Hands—Some New Hands:**

AC3GB AC3IE AG3I K3FAZ K3JAS K3STL K3WM KA3JKS  
KB3EYY KC3LHW KC3OCC KC3PXQ KC3QWF KC3UIJ  
KG4JBB KQ3S N2MA N3MWC NM3A W3BUW W3CDW  
W3MLJ WA3HGW WC3O WQ3Q





## Welcome New Members !!

Welcome the following Skyview Radio Society Members who have joined us since publishing the August 2022 newsletter:

**N4JTO - John Tozier - Greensburg**

**W3CDW - Chris Wilson - Oakmont**

**WA3ERT - Dennis Cunningham - Greensburg**

**AB3IK - Patrick Dougherty - N Huntington**

**K3ELP - Andy Marhefka - Vandergrift**

**WB3INB - Emil Mikulas - Lower Burrell**

**K3DWS - Derrick Stewart - Parker**

Remember that something is going on up at 'the joint' every Tuesday. Sign up for the K3MJW Groups.io Reflector to get the latest news and event announcements by email.

If you are a reader who is interested in becoming a Skyview member, then go to:

<http://www.skyviewradio.net/> for information.

If you are a reader who is not yet a ham, and you are interested in becoming a ham, , then go to:

<http://www.skyviewradio.net/> for information.



## Skyview Radio Society Roster as of 30 SEP 22

NM3A	WB3HFP	KC3MIQ	K3SBE
N3AFS	WA3HGW	K3MJ	KC3SDJ
KB3APD	KB3HPC	K3MRN	KC3SKX
NA0B	KA3HPM [SK]	N3MRU	KC3SNZ
W18B	K3HSE	KS3N	KB3SOU
N3BAH	KB3HXP	G4NFS	K3STL
W3BUW	AC3HZ	KB3NSH	KC3STS
KF3C	AG3I	AJ3O	KC3STV
KC3CBQ	AC3IE	WC3O	KB3SVJ
W3CDW	KC3IIO	WC3O	KC3TEX
K2CI	AB3IK	KC3OCA	WV8TG
K3CLT	WB3IMB	KC3OCB	N3TIN
K3DCG	W3IU	KC3OCC	N3TIR
K3DWS	K3JAS	K3OGN	W3TLN
KC2EGL	KG4JBB	N3OIF	N3TTE
KC3EJC	N3JLR	KB3OMB	AG3U
K3ELP	KA3JOU	KB3ORO	NS3U
AB3ER	ND9JR	NK3P	KC3UIJ
WA3ERT	N4JTO	K3PC	N3UIW
N3ERW	K3JZD	KC3PEM	W3UY
K3ES	KC3KEI	KC3PIM	KX3V
KB3EYY	WA3KFS	K2PMD	K3VRU
AC3EZ	KB3KHR [SK]	KE3PO	N3VXT
WB3FAE	AC0KK	W3PRL	W3VYK
K3FAZ	K3KR	KC3PSQ	N3WAV
KC3FEI	W4KV	KC3PXQ	K3WWM
K3FH	KC3KXZ	NU3Q	N3WMC
K3FKI	WE3L	WQ3Q	K3WWP
KC3FWD	WA3LCY	KC3QAA	N3XF
AC3GB	KC3LHW	KC3QIR	KB3YJQ
N2GBR	W3LID	KC3QWF	W3YNI
AC3GE	WB3LJQ	NJ3R	W3YNX
KC3GIL	KB3LND	K3RAW	WA3YWU
KC3GIN	K3LR	K3RMB	K3ZAU
KC3GPM	KC3LRT	KC3RPE	W3ZVX
K3GT	AB3LS	KC3RPP	
AB3GY	KC3LZH	W3RRK	
KC3GZW	N2MA	I2RTF	
NC3H	KC3MBM	KD3RVR	
NY9H	N3MHZ	KQ3S	

Notes: Only Call Signs are being published. Refer to QRZ.COM for more information. (Unable to publish those without Call Signs.)

## Kul - Links

Jody - K3JZD

There is lots of stuff out on the Internet... Some of it can brighten your day. Some of it can educate you.

I can't really copy and past it all in here. But, I can point you at some of it . . . . .

Electrons in Single File ??? D an - NM3A sent in this link to this really interesting idea :

<https://www.azom.com/article.aspx?ArticleID=2686>

APRS is changing to use LoRa networking. It will require less expensive hardware and will provide a longer range. This update from 1980 technology to a more modern technology may rejuvenate interest

[https://www.youtube.com/watch?v=wigWkOsL\\_xw](https://www.youtube.com/watch?v=wigWkOsL_xw)

Paul-K2PMD sent this in: For all of you Wordle fans (or Morse code folk) there's now a Morsle Daily Challenge. This site is also good for those of us learning CW to practice copying words and call signs in a fun and interactive way. <https://morsle.fun/>

I'll consider any Kul - Links that you find.  
Email then to me at: K3JZD AT ARRL DOT NET  
They might just end up in the next issue

## Previous Issues

Previous Issues of the Q5er are available at

<http://www.nelis.net>

**Next Newsletter will be December 1, 2022**  
**Closing Date For Submissions : Nov 15, 2022**

**K3JZD AT ARRL DOT NET**

## Become Well Known Publish in the Q5er

**The Q5er goes to other clubs and is  
available to all on our web site.**

**Submissions to : K3JZD AT ARRL DOT NET**

>>>>> **WARNING** <<<<<<

An Alarm System has been installed up at the joint. Do Not go in there on your own until you learn how to disarm and rearm it.

## \*\*\*\* Skyview VE Testing \*\*\*\*

**For Testing Dates, See :**

<http://www.arrl.org/find-an-amateur-radio-license-exam-session>

**Time:** Usually 8:15 AM

**Location:** Skyview Clubhouse Meeting Room  
2335 Turkey Ridge Rd  
New Kensington PA 15068-1936

**Contact:** William C. Dillen  
(724) 882-9612

**Email:** [bdillen@comcast.net](mailto:bdillen@comcast.net)

**Please E-Mail or call to register!!!**

While walk-ins are accepted, the exam session may be cancelled if no candidates are scheduled.

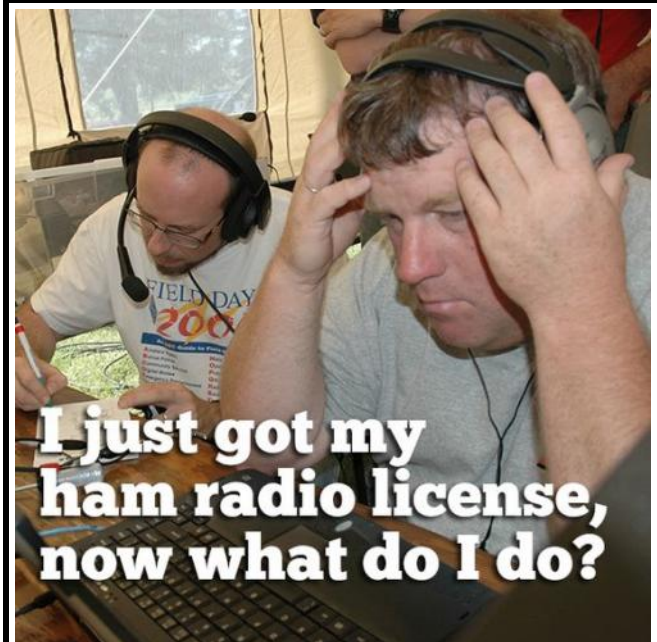


Q5er Editor & Publisher: Jody Nelis - K3JZD

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email your comments and article submissions to: [K3JZD AT ARRL DOT NET](mailto:K3JZD@ARRL.NET)



**I just got my ham radio license, now what do I do?**

That's Easy . . . .

Come up to the Skyview Clubhouse on any Tuesday and ask !!!

And See : <https://tinyurl.com/y79tqsr8>

All General Information about the Skyview Radio Society is at <http://www.skyviewradio.net>

Subscribe to K3MJW [groups.io](https://groups.io/g/K3MJW) reflector for All Current News & Activities : <https://groups.io/g/K3MJW>  
If you want to keep up with what is going on NOW, that is the place - have it forward msgs to your email



Is this how your dining room looks ??

Send in pictures of your Ham Shack