



Q5er – The Official Newsletter of the Skyview Radio Society

Top of the Solar Cycle?

If you are not familiar with the Solar Cycle (aka Sunspot Cycle), here is a good reference: https://en.wikipedia.org/wiki/Solar_cycle.

The Solar Cycle does not mean much to most people. But for Ham Radio Operators who use the HF (High Frequency) bands, it is a rolling 11 year period of Feast or Famine. Feast when we are around the top of the Solar Cycle – Famine when we are around the bottom of the Solar Cycle. Pot luck in between.

Right now, we are somewhere around the top of the Solar Cycle. With that we will get some disruptive things like Solar Flares, Solar Storms, Radio Blackouts, and High Noise Levels. In spite of all of that disruption, whenever we are at or near the top like we are now, on most days we can work DX on the high bands (20-17-15-12-10 Meters) with low power and marginal antennas. Often from early morning until late evening.



Space Weather News for Oct. 18, 2024

<https://spaceweather.com>
<https://www.spaceweatheralerts.com>

SOLAR MAX HAS ARRIVED: It's official. NASA and NOAA announced this week that Solar Maximum has arrived. This kicks off a period of high solar activity which could persist for another 1 to 2 years. Full story @ [Spaceweather.com](https://spaceweather.com).

Is this really the top, or have we already gone over the top?



Space Weather News for Nov. 4, 2024

<https://spaceweather.com>
<https://www.spaceweatheralerts.com>

SOLAR MAX IN THE SUN'S SOUTHERN HEMISPHERE: Solar physicists have long known that the two hemispheres of the sun don't always operate in sync. Right now, in fact, the sun's southern hemisphere is producing three times more sunspots than the north. This raises the possibility that only one half of the sun is fully experiencing Solar Max, with the other half yet to come. Full story @ [Spaceweather.com](https://spaceweather.com).

Seems like no two solar forecasters agree. The history shows that tops and bottoms are erratic.

Various conditions are used to predict turns, but they are not 100% reliable. So, there are a lot of opinions.

The QRZ 'Good Conditions' or 'Bad Condition' charts are often incorrect – don't rely on them.

Best advice that I can give is to ignore all of that forecasting noise. Get on the air and enjoy it while it lasts. Don't procrastinate.
de Jody - K3JZD

2024 is Skyview's 64th Anniversary !!

December 1, 2024

-
- 2024 Field Day
-
- VE Testing
-
- 1956 Edison Award
-
- Einstein's Theory
-
-

Sunspot Numbers Peaking

Time to exercise the 10-12-15-17-20 Meter bands While They are Hot

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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 different subjects in this issue. Skyview Members are pretty active.

Many like to share what they built or done. This newsletter provide a vehicle for that sharing.

Old Timers will often share tricks and techniques, as well as describing various activities that they participate in.

New hams will often share how they have handled license testing and setting up their first time stations. I always enjoy hearing about why a new ham decided to get into this obscure hobby.

Any new or old ham can proved some good or bad opinions and feedback on products that they have purchased, installed, and used.

You do not have to be a professional writer. I will assist with any editing that is required.

Jody - K3JZD

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

From the Treasurer

It is Membership Renewal Time. In his renewal letter, Tom—AB3GY did a great job of describing how your Dues and any donations that you include with your dues cover our Annual Fixed Expenses.

You may have seen in Tom's renewal letter that he is asking for you to provide information about your present occupation (or if you are retired, what you did before you retired). It would be very useful to have this information for those times when we could use some advice from someone that has some knowledge in an area where the BOD members are not well versed.

Tom is also asking you for your Other Hobbies. We all probably do things other than ham radio. There are probably many common other hobbies. The idea behind this request is to collect information for a future publication of a sorted Other Hobbies List. A published list would allow members to connect with other members who share a common other hobby.

Thanks for being a Skyview Member. Looking forward to having you with us again in 2025.

Jody - K3JZD

ADVENTURE: The respectful pursuit of trouble.

Ham Radio is a Contact Sport

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.

Continue Use the Skyview Facilities At Your Own Risk - It is Not Really Totally History Yet.

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

Those who don't believe in magic will never find it – Roald Dahl

September 2024 Business Meeting Minutes

de Don - WA3HGW

Skyview Radio Society

Monthly Business Meeting – Nov 5 ,2024

Call to Order: 7:30 PM by President Brian Manley, K3ES

Attending – 31 Members: WA3HGW, K3JAS, N3WMC, N3AFS, AG3I, K3CLT, W1MP, NM3A, W3IU, NJ3R, AG3U, W3UY, KC3VNB, WA3KFS, AB3GY, WC3O, KC3YYX, KC3LHW, KC3STV, KE3IF, K3JZD, K3FAZ, KA3BCA, KC3VCX, KB3OMB, KC3PXQ, N2MA, K3ES, K4PDF, KQ3S and AC3KI.

Prior Meeting Minutes: The minutes of the October 1, 2024 meeting were distributed for review. A motion to accept the minutes as presented was made by AG3I and seconded by K3JAS. The motion passed without objection.

Treasurer's Report: Treasurer Jody, K3JZD, reviewed the Financial Report of 31 October, 2024 (attached). Jody predicted our 2024 fixed expenses will end the year with a slight excess. He added an "Interior Improvements" category to the Capital Improvements Budgets to more closely track these expenses. So far, Interior Improvement donations have come from Paul, AC3IE, (\$513.27) and Steve, KE3Z (\$1000). The club received a \$50,000 donation for the clubhouse expansion from a member who wishes to remain anonymous. The club purchased a Yaesu FTM 5000 VHF/UHF transceiver. Additional expenses were for the Geochron clock yearly subscription and a weather radio pre-amp. Income included half & half winnings plus VE testing. A motion to accept the Treasurer's Report as presented was made by KC3PXQ and seconded by K3CLT. The motion passed without objection.

Membership Report: Tom, AB3GY, advised there are two new membership applications. AB3GY made a motion to open the membership rolls. The motion was seconded by WA3KFS. Applications are from:

Andy Jobb, KB3GKX, a Technician from Strattanville, PA.
Jim Patterson, AC3NA, an Amateur Extra from Claridge, PA

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

membership rolls, which was seconded by W1MP. The motion passed without objection. Membership now stands at 170.

Radio Officer Report: Bob, WC3O, reported all radios are working well. The new Yaesu VHF/UHF transceiver is installed and working well. We are still having problems procuring all the parts needed for replacing the lift cables on the crank-up tower. The tower manufacturer is not responding to our inquiries. Bob is hoping to get the needed parts soon. Working on adding a computer to the Green station so we can have an easy look-up on QRZ.COM and keep the main computer dedicated full time for contest logging. Still need a computer to complete.

Kitchen Report: Bob, WC3O, said there is \$109 in the kitchen fund after transferring \$100 to club unallocated funds. The kitchen is well stocked.

VE Report: There was one candidate for Technician. Our new ham is: Brady Lippert, KC3ZZY from Lower Burrell, PA. There is one candidate for the November VE testing on November 16.

Newsletter: The October issue of the *Q5er* is out with 43 pages of great information. Jody is looking for more submissions by November 15 for the December issue.

Facilities: No report.

Building Committee: AG3I reports that the restrooms are finally complete.

Operating Events Recap: Skyview was 1st in the 4E category for Field Day 2024. Congrats to all who helped out.

Calendar of Events:

November 8 - ARRL Frequency Measuring Test.

November 9 – ARES meeting. Breakfast 8:30 AM at New Kensington Eat & Park.

November 2 to 4 – ARRL Sweepstakes, CW.

November 16 to 18 – ARRL Sweepstakes, Phone.

December 7 – ARRL 160 meter contest.

December 17 – Skyview Christmas party at the clubhouse.

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January 4 & 5 – ARRL RTTY Roundup

January 18 – Skyview Banquet.

January 25 & 26 – Winter Field Day

Old Business: Founders day was a success. 250 contacts were down this year due to being the same time as the CQ WW Phone contest. Skyview also participated in the PA QSO Party and achieved a clean sweep of all Pennsylvania counties, which was difficult for most participants.

New Business: Election of club officers. Nominated were:

Vice President – Brian Sauk, KC3VNP.

Director 5 year – Joe Poli, KC3PXQ.

Director 5 year – John Italiano, WA3KFS.

With no further nominations put forward, WA3KFS made a motion to close the nominations, and N3WMC seconded. The motion passed without opposition. K3ES noted that with no nominations for Treasurer, Secretary and Radio Officer, the officers in these positions agreed to remain for 2025. K3ES then called for a voice vote. The Yea's were unanimous with no Nay votes. Jerry, W3UY will advance to President, and Brian, K3ES, to Chairman of the Board Of Directors for 2025.

Weather Night:

November 12 – Winter weather presentation by Rich Redman from NWS Pittsburgh office.

December 7 – Skywarn® Recognition Day.

The Pittsburgh and State College Skywarn® interoperation test was a success. The National Weather Service would like to see this expand in the spring of 2025. They can foresee this becoming a national program. Steve, K3FAZ, is still looking for two additional Skywarn® net control operators. We currently have three, but need five. Contact Steve for information.

Elmer Night: November 26. Possible presentation on how to make the frequency measurements for the ARRL frequency measuring tests.

Smoke & Solder Night: Jack, K3JAS, reported that the S&S nights are going well. They are on Thursday evening from 6:30 to 8:30 PM, with several projects ongoing. If you need to learn or just practice soldering, come out and we will get you going. Both Jack and Don, WA3HGW, are building the WA4MCMkits GM-102 wattmeter kits, as reviewed in the October QST. Jack contacted

WA4MCM and was able to arrange a Skyview member discount for a purchase of 8 or more kits. So far Jack has 7 members who want to order. WA4MCM also indicated if we make a group purchase, he would come to Skyview to talk about his kits.

Net Report: Check-in numbers averaged 42.6 in July.

50/50 Drawing: The 50/50 total collected was \$56. The winner of \$28 was Jim, KQ3S. Jim donated the proceeds back to the club.

Meeting Adjourned: A motion to adjourn was made by NM3A and seconded by AC3KI. The motion passed without objection. The meeting was adjourned at 8:14 PM.

Respectfully Submitted,

Don Stewart – WA3HGW

Secretary; Skyview Radio Society, Inc.



SOTA/POTA Across the USA

de Dan - NM3A

Life gives you presents!



Our latest ones were twin granddaughters that arrived in Los Angeles, CA mid-August of this year.

So of course, we had to go see them. In addition, mom and pop needed some help with them. So both sets of grandparents tag teamed to help out. Our turn was second, so we elected to drive across the country to Los Angeles and camp along the way. We decided to hit a number of parks and interesting places along the way and spent 19 days on the road on the way out. And of course, POTA and SOTA were going to accompany us along the way. All my activations were one hundred percent CW.

We stayed in or near many state and national parks to a large extent. My first POTA was from Willow River SP, WI, just east of Minneapolis. Unfortunately, a bad cold had me cut this one short of a complete activation, my only incomplete on the trip. Our first big stop was Theodore Roosevelt NP in western North Dakota. A beautiful example of the American Badlands. I picked a highpoint in the park and set up with my QMX Mid-band (60-15 meters, 5 watts max, but I only used 2.5 watts) and a 41 foot vertical wire on a push up fiberglass pole. With a 17 foot counterpoise and a 9:1 balun, it is easily tuned with my Elecraft T1 for any band 40 meters and higher in frequency

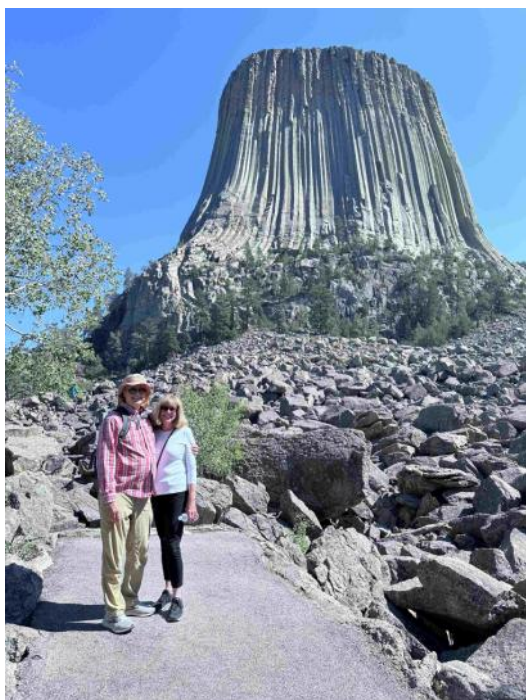


The mast was necessary as there are very few high trees in this near desert landscape. I wedged the mast between a few rocks and away I went. Like all the other activations I did, I soon had a mini-pile up on 20 meters and made plenty of contacts. Most parks and SOTA sites gave me at least 20 QSOs in less than an hour and a few times I had to pull the plug at around 40! At least half of my activations were with the QMX.

The nearby town of Medora, ND provided another POTA site. This time I elected to use my mobile rig and operate from the car. I had an ICOM IC-7100 with an LDG Z-100A tuner and a rear hitch mount for hamstick type antennas.



I used 20 meters here and exclusively throughout our trip with one exception for 40 meters. I usually ran 40 watts from this rig. This was one of the sites where I had to actually break the pile up and just quit as we had another event to go to.



From here we drove to Devil's Tower National Monument.

I operated from the car here in the parking lot. It is a SOTA site, but the 'hike' to the top seemed a bit daunting to me, so I opted to skip it.

I did look up how many times it had been SOTA activated and the total was two! Later in our trip we ran into Devil's Tower again. While in LA, I purchased a Morserino from Alan, NM5S. As he lives in Santa Fe and as we were going through there in a few days, we decided to meet and pick it up in person. Over lunch, we got to talking, and it turns out he was the second person (and the last in September 2019) to activate Devils Tower! I was rather impressed as he is the same age as me. Of course, I would have also been impressed if he was 20.

Next was the beautiful Custer State Park in the Black Hills. Next door to Custer is Mt Rushmore. Got both of them in the log. On the other side of Custer is Wind Cave National Park. The cave was closed as they were replacing the elevator, but there was a nice SOTA site in the park. I used my QMX with an 84 foot non-resonant wire as an inverted V (my preferred portable antenna and the usual deployment.)



Nice hike to the top and a beautiful day for it. Here was my best DX. I copied a JO5 station with a strong signal. I asked for confirmation of his call and yes, I got it right! Not too shabby for 2.5 watts.

From there we traveled to the Grand Teton NP. There are lots of SOTA sites here, but I didn't feel quite prepared for most of them.

I did activate Signal Mountain in the park. It's a low drive-up, but still was fun.

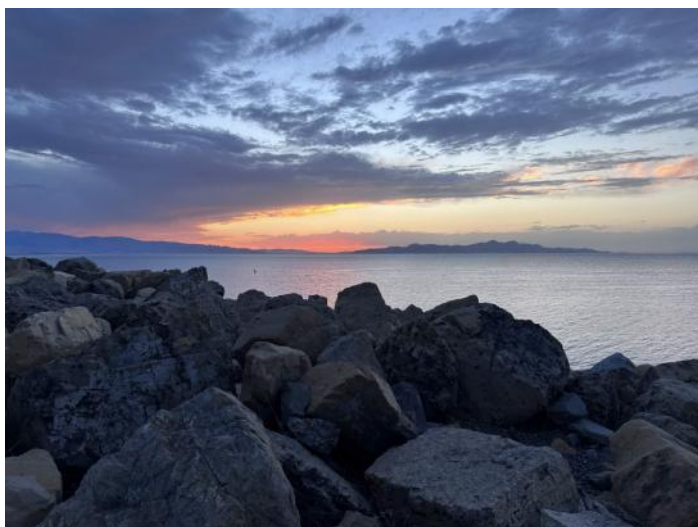


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On to the Great Salt Lake SP where we hiked up to a hill on Antelope Island in the park and got on the air there. I didn't plan it too well as there is a SOTA site on Antelope Island, but we did not have enough time to hike up to the top.



We did get to view some gorgeous sunrises and sunsets though.



The next drive was right past Bonneville Salt Flats. We had to stop and activate it and watch the racers come to the next event.

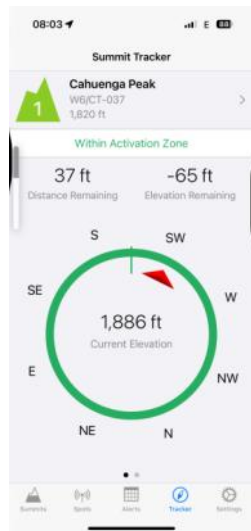


From here was a long drive to Lake Washoe SP near Carson City, NV. I really enjoyed visiting the Carson City museum in the old mint building there. Another in the log and more neat views.

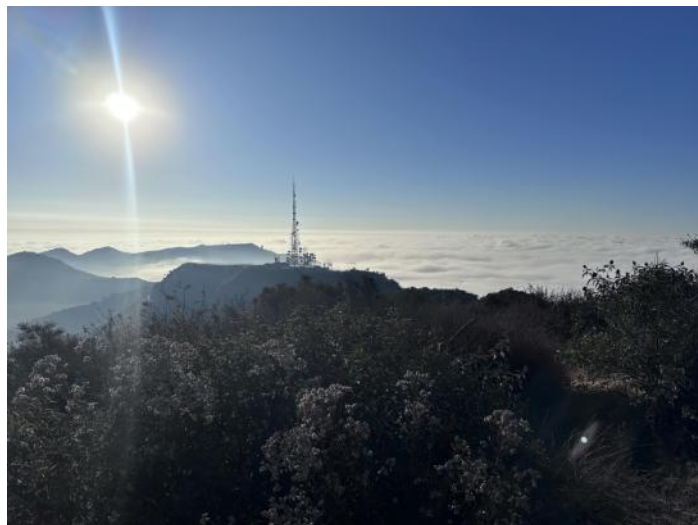


A long drive down the eastern side of the Sierra Nevadas. We passed lots of POTA sites and could view many SOTA peaks, but alas, we had a long drive and I didn't take the time to stop and activate any. Of course, it didn't help that it was near 100 degrees much of the time. We finally arrived at Lake Isabella, CA and I did get in one activation in Sequoia National Forest.

We spent a month with our son's family in Los Angeles. We were generally rather busy with the two girls, but I did get out to Cahuenga Peak .which is just northwest of the Hollywood sign.



Although not very high, it is a challenging hike: an 800 foot climb in about a half a mile! My push up mast and 41 foot wire worked well here again. The view was surreal as it appeared I was in a sea with lots of islands due to the morning fog that usually covers much of LA that time of year.



Leaving LA, we spent a night in Joshua Tree NP and an activation there. We had a few issues with our camper, not to mention the 108 degree heat, so I missed many potential sites along the way to the next activation in Lost Dutchman SP just east of Scottsdale, AZ, then Blue-water Lake SP before arriving in Taos, NM.

There I activated the Rift Valley in Rio Grande del Norte National Monument.



Foss SP in Oklahoma was another. We visited the Oklahoma City Memorial Park, but I opted not to activate there as I did not want to be intrusive. Fort Smith NP was activated on the way to Hot Springs, AR.

Foss SP in Oklahoma was another. We visited the Oklahoma City Memorial Park, but I opted not to activate there as I did not want to be intrusive. Fort Smith NP was activated on the way to Hot Springs, AR.

In Hot Springs NP, I activated two locations. First was near the observation tower in the park. The next day we hiked to Music/West Mountain which is one of the SOTA sites in the park.



I operated both sites with my QMX at 2.5 watts with very good conditions.

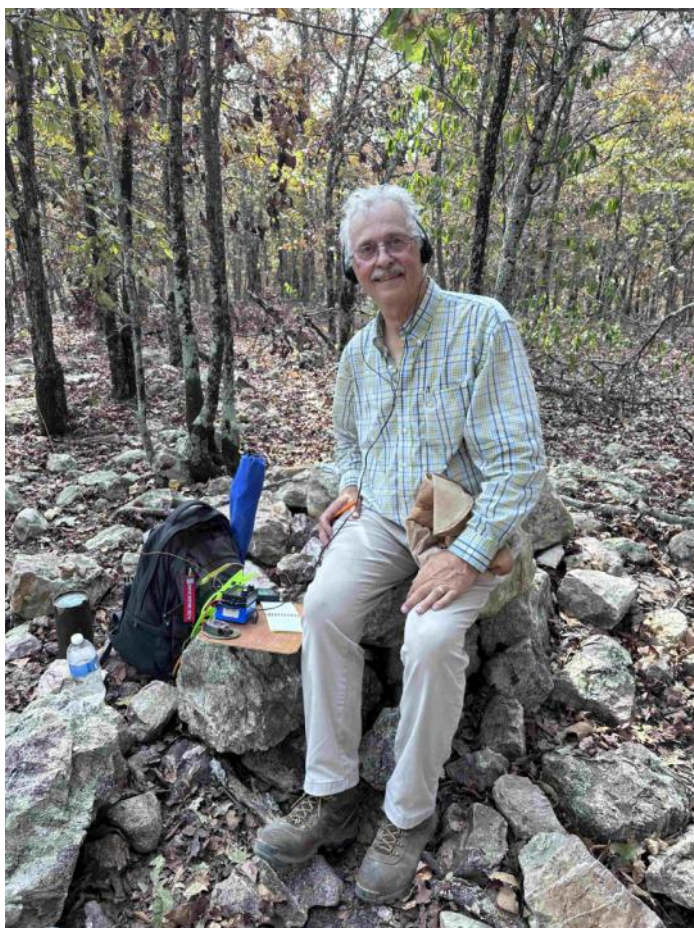


T O Fuller SP in Memphis, TN completed my activations on our trip around the USA.

I did get QSOs from 4 different Skyview members along the way. Thanks all!

Can't wait for the next trip! We are hoping to spend some time in Michigan POTA and SOTA sites next year. And maybe some time up in NY and QC.

POTA. SOTA. Try them sometime - you'll love it!



de Dan - NM3A



<https://parksontheair.com/index.html>

<https://www.sotadata.org.uk/en/>

Helpful Hardware Hack for Handy Hams

de Don - WA3HGW

I learned to solder back when I was around 12 or 13 years old. I got hooked on electronics, and ham radio in general. For Christmas around that time, I received a Heathkit EK-3 Basic Transistors education kit. Building this kit required soldering and unsoldering lots of components at each stage of the course. You had to build circuits from simple to somewhat complex at each stage. It also required a basic VOM to make circuit measurements, which had me buying my first piece of test equipment. To do the soldering, I purchased a Weller soldering gun. All this led me to my now well understood “Tip of the Iceberg” project where one purchase invariably leads to several more.



By the summer when I was almost 15, I had met my life-long friend Chuck, WA3CEJ (SK), and was studying for my Novice ham license. I passed, and a few months later received my FCC call: WN3EPH. It took several weeks for the FCC to process a license back then. By then I had added some homebrewing electronic stuff to my skills. As a novice I built a grid-block keyer, which allowed me to avoid having high voltage from the transmitter on my hand key. I seemed to remember it also allowed some shaping of the CW envelope to avoid key clicks. I also built a morse keyer from the 1965 ARRL handbook. It used a pair of 12AU7 tubes. Of course, that caused me to purchase a Vibrokeyer Deluxe paddle for the princely sum of \$22.45 plus tax, a lot of lawn mowing back then.

All of this building would wear out those Weller soldering gun tips. And those replacement tips were expensive when compared with my income from lawn mowing. They're still expensive today, with a replacement tip from Amazon at about \$5 each. That's quite a lot for something that's basically stamped out of a short piece of #5 AWG copper wire. Chuck taught me that you don't have to buy Weller tips, but you can make suitable tips

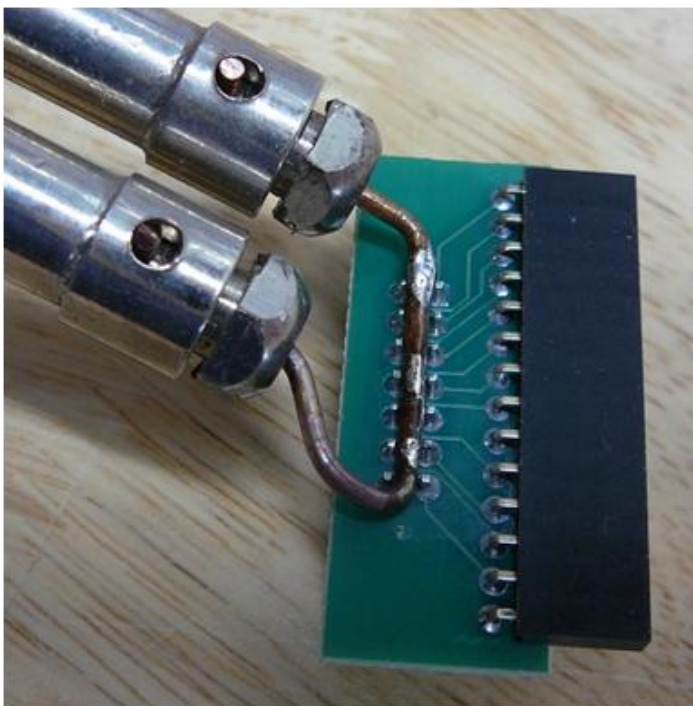
from a piece of #12 AWG solid house wire. They don't last quite as long as real Weller tips, but you can make a lot of tips from a foot or so of 12-2 with ground Romex.

So, where does this Helpful Hardware Hack come into play? While building the WA4MCMkits GM-102 SWR/Wattmeter kit at our Smoke & Solder night, I ran into a little difficulty. Don's build instructions are very clear and precise. It makes building the kit pretty easy, with the assumption you follow the instructions carefully. One assembly step is to solder a 14 pin connector onto the display interface board. The instruction is to put the connector on the board while placing the board on a flat surface to hold the connector in place. Then solder one pin on the connector, turn over, and inspect to be sure the connector is flush with the board surface and centered in the outline on the top of the board before continuing to solder the remaining pins. That's what I did, or at least thought I did. After soldering the remaining 13 pins, I looked at the connector and sure enough it was tilted backwards on the board and up at one end. OOPS!

Now I have a dilemma. How can I fix my mistake? My first thought was to use my Harbor Freight mini Butane torch to heat up all the connector pins and push it down on the board. I quickly concluded that was a sure recipe for destroying both the connector and the board. There are soldering iron tips that are used to solder (or unsolder) multiple connections on a board, but they are mainly sized for IC chips, and wouldn't fit this connector. Then it dawned on me. I could make a special Weller soldering tip to do the job. I found that #12 wire would fit nicely between the two rows of connector pins. I cut a suitable length of wire and bent it to fit between the rows of pins.



It worked perfectly, heating all 14 pins simultaneously, letting me push the connector down flush with the circuit board. There were a couple of pins that were bridged with solder, but a quick re-heat with a soldering iron fixed that.



One thing I learned was the wire I used to make the tip was too short. Ohms Law says the lower the resistance, the higher the current. The full current from the gun was going through this short wire, making it heat up really quickly and really too hot. I should have made the wire longer. That would do two things: Make the straight wire for heating the connector pins farther away from the gun's mounting nuts for better visibility of the board. Also, the longer wire length would distribute the heat over a longer area, lowering the heat applied to the connector pins to a better temperature. That said, my short tip did do the job.

This led me to another idea. One of the tasks for building the GM-102 sensor board involves soldering a short piece of brass tubing onto the board. The tube is used for mounting a small toroid sensor inductor on the board. I looked at the photo of the tube soldered to the board in the assembly manual. It looked like a difficult job for a small soldering iron, as used for soldering components on the circuit board.

The solder was not smoothly flowed around the brass tube. It looks like there was not quite enough heat to make a nice solder fillet. Ah Ha... I can make another custom Weller tip for this job too. To test the idea, I found a solder terminal the same size at the brass tube. (It's actually a British Lucas "bullet" connector as used on my MG cars.) Then I took a small scrap of printed circuit board and drilled a hole for the connector. I wrapped a length of #12 wire around the connector and brought the ends out to about the same length as a normal Weller tip and mounted it on the gun.



After tinning the wire, I placed the tip around the connector on the board and pulled the trigger. It heated up quite nicely, and the solder flowed around the connector and on the board. The result was a well soldered joint with a nice shiny fillet. Success!



For those members who elect to join us at Smoke & Solder night building the GM-102 meter, I'll have my "special" Weller soldering gun available for you to use.

de Don - WA3HW

Local APRS Activity de Jody - K3JZD

I have a small transceiver in one of my cars that I keep tuned to the Amateur Position Reporting System (APRS) frequency. I send out location reporting packets. I discussed what I'm using in an earlier issue.

I keep my receiver volume very low. I only hear sporadic packet bursts whenever I'm driving around locally. There is not a great deal of activity. I will occasionally hear a loud packet burst, which is most likely coming from some other nearby mobile unit.

APRS is quite difficult with our hilly terrain. A loop of my travel is always shown on the APRS map, but it does not necessarily show the actual route that I took. After being unreported for miles and miles, I will get picked up later on whenever I reach some higher altitude location. All the map can do is show a direct line that connects the dots from the received location reporting messages.

During a recent SOTA outing, I was tracked better than expected while going to Mount Davis, then to another SOTA Summit off of Sugarloaf Road above Ohiopele, and then back home. But there were still large areas where my actual route went unreported.

I did a SOTA Activation at Blue Knob Mountain earlier this month. Once I got to the top of Blue Knob Mountain, I could hear non-stop overlapping APRS packets. For a protocol that is broadcast only, with no acknowledgements or retries, sitting at a high location like that and hearing all of that surrounding activity, makes it easy to understand how many periodic location reporting packets will get missed.

For me APRS remains somewhat interesting. But it is not something that I would trust to use to locate me if I failed to return home from some adventure.



de Jody – K3JZD

<https://aprs.fi/#!lat=40.31770&lng=-79.72230>

2024 ARRL Field Day Results Published

"Results are published, and the numbers are in. They paint a picture of a very active [2024 ARRL Field Day](#). Nearly 1.3 million contacts were reported during the 24-hour event. That is up from 2023's 1.25 million contacts. That's likely indicative of the continued rise of Solar Cycle 25 leading up to the event, but more people also participated this year.

Entries were received from all 85 ARRL and Radio Amateurs of Canada (RAC) sections, as well as from 27 different countries from outside the US and Canada.

'It is encouraging to see a rise in participation year to year,' said ARRL Contest Program Manager Paul Bourque, N1SFE. 'ARRL Field Day is amateur radio's premier event, and the hams turned out for it...'

Mary Burke, W3CUL Wins 1956 Edison Award

\$5,000 in 1956 currency is equivalent to about \$46,000 in 2020, per the U.S. Bureau of Labor Statistics' "Inflation Calculator." That is the value of the amateur radio equipment used by [Mrs. Mary Burke](#) in her work handling "an average of 3000 messages per month, principally for service personnel overseas."



For her tireless wireless efforts, she was the first woman to win the coveted Edison Award Cup (sponsored by General Electric). Most of Mrs. Burke's communications was via Morse code, where she restrained herself to "about 30 words a minute to maintain accuracy". Way to go, Mary

Einstein Expounds on His New Theory

After searching for the first mention of [Nikola Tesla](#) in U.S. newspapers, I performed a similar search on Albert Einstein, again using editions available in the [NewspaperArchive.com](#)* database. I was utterly surprised to find it in a 1919 issue of the [The New York Times](#). His theory of [Special Relativity](#) was published in 1905 and his theory of [General Relativity](#) was published in 1915, so it took *The NY Times* four years to mention it. There is a reference to Dr. Einstein's' work on relativity in a 1915 edition of [The Manitoban](#)*, from Winnipeg, Canada.

The New York Times 1919 article is an actual interview with Albert Einstein, wherein at one point it is stated that there were perhaps only a dozen people in the world at that time who understood general relativity. Interestingly, Einstein uses the term "[difform motion](#)" to describe what we now call "non-uniform motion." One satisfying feature of the article is verifying that there is/was someone in the world who creates longer run-on sentences that I do. No attribution to a particular writer or news service is offered.

Articles Submitted by Chuck - K3CLT

Nothing's Easy

de Cooky - WC3O

The crank-up tower was erected at the clubhouse in 2003. It was a gift from long time Skyview member Don McDaniels, KJ3Q when he moved to Florida. The cabling was replaced at that time, a donation from Bob King, W3GH.

Over the years time has taken its toll on the hoisting cables. Like a chain, you need to worry about the weakest link. Just one failed cable would likely mean the end of this valuable asset. To buy a new tower would be a major investment at around \$14,000 plus shipping.



So it's time to replace the cabling. The tower was made by Tri-Ex. Today, the same tower is manufactured by Tashjian Towers in California. We purchased the cable kit from Tashjian a while ago. We opted for the more expensive stainless steel cable set. The cabling kit arrived with no issues. Other club projects such as repairing lightning damage delayed starting the crank-up tower cable project.

Finally the day came to replace the cables. I mainly wanted to get the two top sections replaced soon, as they were thinner cables and in the worst condition. Since the tower already has cables installed, this should be fairly straightforward.



WRONG!

I supported the top section to take tension off of the cable/s. All is good so far. Then, I quickly found that the new cable is thicker than the old cable.



This caused concerns. Did they send me the right cables? Was this a design change? If it is a design change, what else do I need to change? Will the new cables fit the pre-existing pulleys?

This is where things really came off of the rails. I expected this project to take maybe a couple of days. It has now gone on for many MONTHS.

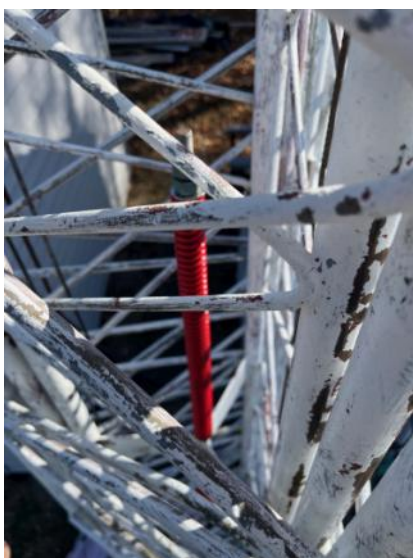
Another design change... The tower is equipped with a positive pull-down cable, should a tower section become jammed while extended. The cable attaches to the top section with a long piece of All-thread and a spring. Both the spring and the All-thread were rusty so I ordered new ones.



I assumed the new one to be the same as the old one, but again. Design change. The new one is around a foot longer. More concern.

I was nothing but nice to the folks at Tashjian. I had 5 times more patience than I rightfully should have had. The owner, Karl Tashjian will no longer take my phone calls. I have questions.

LOTS of questions! There is NO documentation other than the original tower documentation that was printed MANY years ago showing the prior components.



Short story long...

The thicker cables are a design revision. The original pulleys will still work. The original cable was 3/16 inch. All cables on the tower are now 1/4 inch. There is a cable adjuster bracket.

I wanted to replace these adjusters since they were rusted, plus the newer/thicker cables will not fit them. They don't make those adjusters any more. They have a revised design... The new adjusters are heavier. with a thicker bolt. Now we need to drill out the adjuster bolt holes on the tower from the INSIDE of the tower. Read NOT easy.

When I ordered the cables I also asked them to send me any hardware that I might need. They sent me a bunch of new hardware, none of which fits... It is all much bigger and impossible to use.

When working on stuff like towers, there's a lot at stake. You want to use all approved hardware. I have NO desire to take shortcuts. That's why I wanted to go straight to the manufacturer so that there was NO question that the repairs were done correctly. However...

So I needed to make another order to obtain the new style adjusters, along with a couple pulleys that we found the bearings had gone bad. More pain with being ignored by Tashjian. After countless attempts I finally got through and the items were shipped.

The box of components finally arrived. I opened the box. What the hell is this? There were a number of mystery parts in the box that are not on the tower! Again, NO instructions there other than a handwritten note that said "Bob, you'll need to weld the bracket onto the tower."

WHAT? What bracket? WHERE on the tower! What are these parts for? How is this supposed to go!

By this time I'm really starting to get pissed. This is really getting OLD. Again, after repeated attempts to contact Tashjian for information, I am ignored. Finally I received an email back from Mike at Tashjian saying that the mystery parts are related to the tilt-over fixture, which we don't have, nor did I ask for!

So we FINALLY start to replace the cabling. I am also applying grease to the cables to maximize their lifespan. This is the same grease that KDKA uses on their guy wires to prolong their life.



I attached a string to the old cable and pulled the string through as the old cable was pulled out. Then attached the new cable to the string to pull it through and follow the exact path through all of the crossmembers. That worked great.

I went to replace one of the bad pulleys. The new one is a different size! Again - Is this a design change? Did I receive the wrong part? NO instructions...



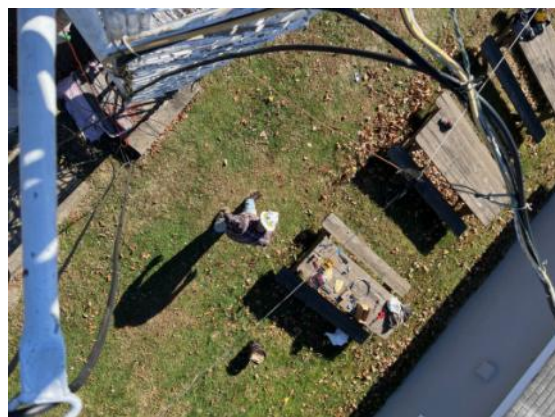
Again, after great effort I found that I did receive the wrong pulleys. As of this writing the correct pulleys are being shipped. We are approaching winter. This project

STILL is not complete. We will likely replace the two remaining cables in the spring.

I am HOPING that this will be the last interaction that I will ever have to have with Tashjian Tower. I hope.

Someday I'll be able to look back at this experience and laugh, but I doubt it.

Special thanks to Steve, K3FAZ and Charles, KC3TTK



The Mystery parts:

The two pulleys that are the incorrect diameter. (3.5 inches versus 5 inch).

The red pulley bracket

The short cable

The bracket that is not painted. I assume this is the bracket to be welded?



You also see the two updated cable tensioners that require drilling a larger hole inside the tower.

California. It figures.

de Cooky – WC30
Skyview Radio Officer

We thought you might like to see some of the pictures of the crank-up tower going up in 2003. It was a lot of work back then as well!

Just getting it here was a chore



N3GJ did the finishing



Cheering the completion of the concrete base.



It took a large hole, a lot of wheeled in concrete, and a lot of tamping (N3OS was not a short guy)



Getting it up without a crane took some doing



The new (to Skyview) tower with its coat of protective white paint changed the landscape at the clubhouse.

This photo shows how the pavilion was initially, before the protective siding was added.

The garage did not have its vinyl siding yet.

The red tower that was on the concrete base that is out near today's fire area shows up here

A lot of trees and branches have now been removed to give us a clearer view for our antennas.

I think that the clubhouse looks better today with its subdued gray paint and white vinyl gables.

Most amateur radio clubs do not own property They have to scrounge for locations to have their meetings and their hamfests. We are fortunate.

We owe a lot of the folks who bought the Skyview property and provided the money and labor to build the facilities that we now enjoy.

That was the impetus for us starting to do our annual on-the-air Skyview Founders Special Event.

Skyview members become part owners of the Skyview Property and Facilities without paying any initiation fee whenever joining. That is unusual.

Be proud of being a Skyview Member and treat the property and facilities as your own. Lend a hand during work parties.

Skyview is a 501 (c) (3) organization. Your donations to Skyview are tax deductible.

Skyview VE Sessions

Skyview provides VE Testing at the Skyview Clubhouse each month (Details provided later, near the end of this newsletter)

Here are some of the recent success stories

October 2024

Brady Lippert KC3ZZY passed the Technician exam

November 2024

Seth Ross KD3AET passed the Technician exam

Adamo Mosca KD3AEE passed the Technician exam

de Bill - N3WMC

Smaller and Lighter

de Jody - K3JZD

Many decades ago, a very popular ham station consisted of a Heathkit DX-100 transmitter and a Hammarlund HQ-129x receiver.

Heathkit DX-100

Hammarlund HQ-129x



It took a sturdy operating desk because the DX-100 weighed 100 pounds and the HQ-129x weighed 47 pounds.

Times have changed. Transceivers with solid state components, and lighter cases have brought station weights way down. But how low can you go? Well, that is something that I have been pursuing for the last couple of years.

I have been participating in the monthly Adventure Radio Society Spartan Sprints (<https://ars-grp.com>).

The Spartan Sprint Station' is defined as everything that you are using, up to the coax that is going to your antenna. For this QRP CW event, your score is based on

(Number of Contacts) / (Weight of Station in Pounds).

So, having a very light Station is desirable.

I started out using my SOTA station: an Elecraft KX3 with a 4-pack of Lilon batteries, earphones, and a plastic Whiterook key. That station weighed 2.06 pounds. Making 20 contacts gave me a score of 9.71 (20 contacts divided by 2.06 pounds).

I then began to use my original 40m QCX in its case, which brought me down to a station that weighed 0.9375 pounds, but limited me to one band. 20 contacts gave me a score of 21.33 (20 contacts divided by 0.9375 pounds).

I hit a target goal whenever I got my station down under 1/2 pound. I built a lightened 40m QCX-Mini by changing some components to lighter alternates and I eliminated some non-used components. I never bought a

case for it – just ran it naked. I used a much smaller lower voltage LiPo battery, ear buds instead of ear-phones, and a small 3D Printed that KOMBT made for me. Still just a one band operation though. That station weighted 0.481 pounds. Now my 20 contacts gave me a score of 41.58 (20 contacts divided by 0.481 pounds).

There was really only one way to get a lighter station, and was by using a Steve Weber ATS transceiver. However, the ultralight Steve Weber ATS transceiver is no longer being produced.

Steve is now designing the small MTR transceivers being sold as Mountain Toppers by LNR. The LNR Mountain Toppers have more features and a nicer User Interface. But they are bigger and heavier than the ATS radios were. I had passed on purchasing the original ATS kits whenever Steve was actively selling them because I did not think that I could handle the tiny surface mount components. (Mistake)

Recently I was able to purchase a used ATS III-B.1 model from NM5S. It had been installed in an Altiods tin and was all ready to be taken out on portable operations. All accessories, including SWR Indicator and a homebrewed paddle were mounted in a nice small clear plastic case.



Q5er – The Official Newsletter of the Skyview Radio Society

All it needed was a LiPo battery and an antenna to connect to it. It was a 'shack in a box'.

However, I did not buy this to use during my outdoor adventures. My goal was to create a station that was as light as possible to use for use during the Spartan Sprint.

The AST III-B transceiver mounted in the Altiods tin weighed 2.44 ounces with the power cable attached. The empty Altiods tin was 1.27 ounces of that.

I produced a 0.23 ounce 3D printed case and then moved the AST III-B board into my case. That brought my AST III-B transceiver weight down to 1.40 ounces with the power cable attached.



(The band specific plug in Low Pass Filter (LPF) board is not shown in this photo)

I also produced a 3D printed Micro Straight Key for use with this radio.

When using a 350 mAh 2s LiPo Battery, my complete single band ATS based station weighs 0.1825 pounds. Now my 20 contacts gave me a score of 109.59 (20 contacts divided by 0.1825 pounds).



If I want to work two bands with it, I have to add an additional 0.125 pounds to my station weight because I will have to use a second Low Pass Filter board – my 2 band station weight would then become 0.1950 pounds.



LPF Boards for 80 through 15 Meters

This may be about as light as I will get with this ATS III-B.1 model. The bare ATS III-B.1 board weights 0.87 ounces. Earlier ATS models may have had main boards and LPF boards that were a little lighter than that. But I'm happy with the user interface on this more advanced ATS III-B.1 model.

But, if I wanted to take it to the extreme, some 'accessory' items could still be considered. The phono connector for the antenna is kind of 'heavy'. An SMB or MMCX antenna connector should be lighter. The 'light weight cable' and 3.5mm plug on my home-brewed Straight key adds 0.17 ounces, which is more than the weight of that micro key itself weighs. The cable on the ear buds could probably be a lot shorter. Maybe I only need one ear bud. The power cable and connector is a 'luxury', but it could be shortened to save a little weight.

The downside of trying to reduce even more weight by direct connecting the key, the earbuds, and the battery with short cables instead of using the 'heavy' metal plug-connectors and longer wires, and using it without any case would make using the radio fragile and somewhat inconvenient. However, I could save an ounce by doing all of this things, making it a fragile, but very competitive, 0.1181 pound station.

I may experiment with using a smaller battery. The battery weight is significant – this 350 mAh battery weighs 0.69 ounces. I might not need 350 mAh of capacity to go the whole 2 hours. Maybe a 0.50 ounce 200 mAh battery would do the job.

All in all, it has been interesting to take a step back from using my modern KX3 SDR, QCX SDR, and QCX Mini SDR radios and go back to using this older ATS III-B.1 transceiver. And looking at various ways to reduce my station weight has been an interesting challenge

Decades ago, I would not have ever foreseen myself using a 0.1825 pound station instead of a 147 pound DX-100 / HQ-129x based station. But the times change.

de Jody – K3JZD



"WHAT IS THE BEST EXTERNAL ANTENNA



TUNER FOR MY NEW IC-7300?

Welcome New Members !!

Welcome the following Skyview Radio Society Members who have joined us since publishing the **October 2024** newsletter:

WC3SW –Richard Shumer - Iverton

KB3ZFC - Rick Lippert - Lower Burrell

KC3ZZY - Brady Lippert– Lower Burrell

KB3GKX –Andrew Jobb - Clarion

AC3NA - Jim Patterson - Claridge

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 NOV 24**

NM3A	WA3 HGW	KB3NSH	N3 TIN
N3 AFS	KB3 HPC	AJ3O	N3 TIR
KB3 APD	K3 HSE	WC3O	W3 TLN
NA0 B	AK4 HZ	WO3O	KK3 TM
N3 BAH	AG3 I	KC3OCA	N3 TTE
W3 BUW	AC3 IE	KC3OCB	KC3 TTK
KF3 C	KE3 IF	KC3OCC	AG3 U
KA3 CBA	KC3 IIO	N3OEX [SK]	NS3 U
KC3 CBQ	AB3 IK	K3OGN	WU3 U
W3 CDW	WB3 INB	N3OIF	KB3 UIO
K2 CI	W3 IU	KB3OMB	N3 UIW
K3 CLT	K3 JAS	K4PDF	KC3 UNP
K3 CWE	WB3 JHC	KC3PIM	W3 UY
N5 DB	N3 JLR	K2PMD	KX3 V
K3 DCG	KA3 JOU	KE3PO	KC3 VCX
N3 DL	ND9 JR	W3PRL	KC3 VNB
N3 DRB	K3 JZD	KC3PSQ	K3 VRU
KB3 DVD	WA3 KFS	KC3PXQ	KC3 VYK
KC2 EGL	AC3 KI	AC3Q	W3 VYK
KC3 EJC	AC0 KK	NU3Q	N3 WAV
AB3 ER	K3 KR	WQ3Q [SK]	W3 WC
WA3 ERT	KC3 KXZ	KC3QAA	KC3 WCJ
N3 ERW	WE3 L	NJ3R	K3 WM
K3 ES	WA3 LCY	K3RAW	N3 WMC
KG3 F	AC3 LD	K3RMB	KA3 WVU
WB3 FAE	KC3 LHW	W3RRK	K3 WWP
K3 FAZ	WB3 LJQ	I2RTF	N3 XF
KC3 FEI	WB5 LLI	KI2RTF	W3 XOX
K3 FH	K3 LR	K3RWN	KC3 YEZ
K3 FKI	KC3 LRT	KQ3S	N3 YJN
KC3 FWD	AB3 LS	K3SBE	W3 YNI
AC3 GB	N2 MA	WA3SCM	KB3 YRU
N2 GBR	KC3 MBM	KC3SDJ	W3 YS
AC3 GE	N3 MHZ	KC3SKX [SK]	KB3 YYC
K3 GIR	KC3 MIQ	KC3SNZ	KE3 Z
KB3 GKX	K3 MJ	KB3SOU	K3 ZAU
KC3 GPM	W1 MP	K3STL	KB3 ZFC
K3 GT	K3 MRN	KC3STV	KC3 ZIM
AB3 GY	N3 MRU	KB3SVJ	W3 ZVX
KC3 GZW	KS3 N	W3SW	KC3 ZZY
NY9 H	AC3 NA	KC3TEX	
WB3 HFP	G4 NFS	WV8TG	

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

Are we getting closer to a nuclear powered automobile (and then a nuclear powered cell phone ?)

<https://tinyurl.com/5t4muh5h>

Smart Windows → Why Not.
(Maybe will have AI Support too)

<https://tinyurl.com/2blgddv3>

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 **February 1, 2025**
Closing Date For Submissions : **Jan 15, 2025**

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: Bill Dillen
(724) 882-9612

Email: bdillen@comcast.net

<http://www.skyviewradio.net/ve-tests/>

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