

Q5er – The Official Newsletter of the Skyview Radio Society

Swap & Shop Is This Month

This is our Annual Fund Raiser
. Support It !!!!!



2019 SKYVIEW RADIO SOCIETY SWAP N SHOP!

SUNDAY AUGUST 25, 2019

LOCATED AT OUR CLUB GROUNDS NEAR NEW KENSINGTON PA

Aprox 13 miles northeast of Pittsburgh

2335 Turkey Ridge Road

New Kensington, PA 15068

Talk-in 146.640- 131.8pl

Admission \$5.00 – Table space is \$5.00 (Bring your own table)

Great prizes

Door prizes

Begali CW key raffle

Breakfast and lunch served

Get your Skyview Burger and your Skyview Dipole Hotdog!

Contact: John Italiano WA3KFS - 724-339-3821

www.skyviewradio.net

Location is near the intersection of Rt. 366 and Rt. 380

Club Members —> 0600 AM

Public —> 0800 AM

August 1, 2019

- Swap & Shop
- Swap & Shop
- Swap & Shop
- Swap & Shop
- Swap & Shop
- Swap & Shop
- Swap & Shop
- And More

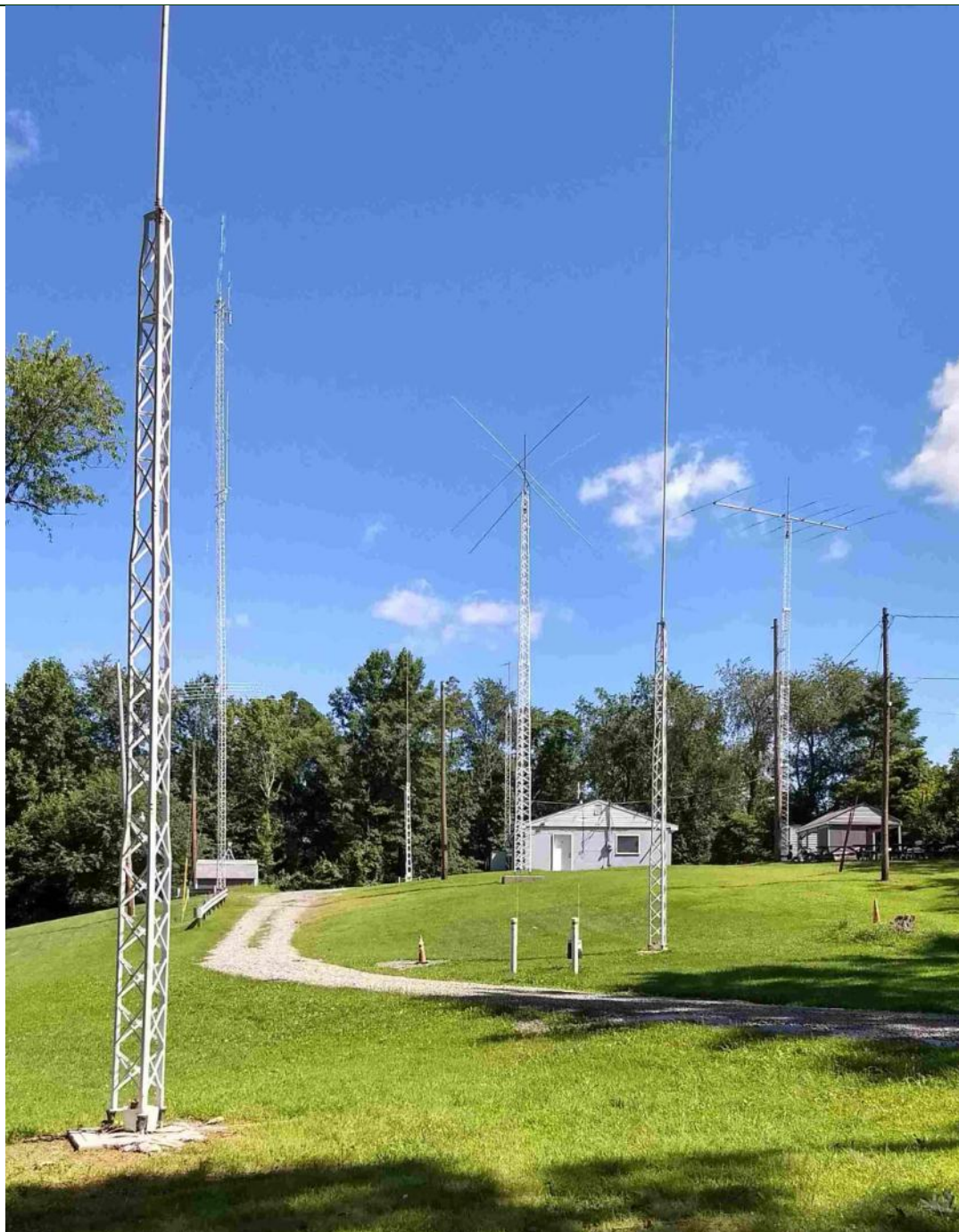
Sunspots?

**I don't need no
stinking Sunspots.**

**I have 40 meters
and 80 Meters.**

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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

Being a newsletter editor is a bit of a labor of love. You put time and effort into it, not knowing how many readers you really have. That is true of any free publication. But even with the paid subscribers, one cannot directly correlate the number of actual readers to the number of paid subscribers.

All I know is that I have between 1 to 'x' readers. I would like to think that 'x' is a large number, but I have no way of knowing what it really is. Even if this was emailed rather than our "it is there, go and get it" approach, that would not provide any better feedback on the ratios of actual readers versus those who might simply hit the delete button upon arrival of the emailed newsletter.

I have seen where some publications have had a find the hidden [whatever] symbol contests to try to see how many readers will respond to that. Something like that may give then some notion of how many readers they actually have.

But, I think it may be far better not to know as a poor response from doing something like that might make me think that there might be better ways for me to use my time !!!

Jody - K3JZD

From the Treasurer

Since I took over as Treasurer, I chose to do a little reorganizing of the financial tracking and reporting .

I setup a system that would allow me to track our annual fixed operating expenses against the dues and donations that were received with the dues.. That seems to be working pretty well. It shows that, at this time, we have our estimated 2019 fixed operating expenses covered, with a little room to spare due to the dues that have been received from new members.

I also setup a system which would allow me to track expenditures against the pre-allocated amounts for facility and radio repairs and the budgeted capital improvement items. So far, that also seems to be working pretty well.

I am managing all other income and all other expenses in a general bucket called "Unallocated". I report the change in value of this "Unallocated" bucket at each monthly business meeting. While that all-else bucket covers a lot of things, I expect to be able to use the filtering capability that is built into the QuickBooks software that I am using to produce some year end summary reports which will show the activity which took place within this all-else bucket.

Jody - K3JZD



Space Weather News for July 8, 2019

<http://spaceweather.com>

<https://www.spaceweatheralerts.com>

A REVERSED POLARITY SUNSPOT: A reversed-polarity sunspot has broken through the surface of the sun--the second time this month this has happened. This latest "backwards sunspot" could mark the official beginning of new Solar Cycle 25. Visit today's edition of [Spaceweather.com](http://spaceweather.com) to learn more about sunspot AR2744 and the transition between solar cycles.

Summer Vacation



Kentucky Fried Chokens

de Bob - WC3O

At the clubhouse we have a receive antenna setup on the GREEN station. Receive antennas are very useful on the low bands (160, 80, 40 meters) where there is typically plenty of signal strength, and plenty of noise. Often times there are distant signals buried in the noise and you just can't hear them. The idea of a receive antenna is to improve the "signal to noise ratio". Noise can come from a number of sources including atmospheric, incidental man-made noises such as poorly designed power supplies and noise that is introduced into the system by what is called "common mode currents".

Ideally you want all of your transmit and receive signals to travel within the coaxial feedline between the inner conductor and inside the shield. In reality there is often another undesired current that flows on the outside of the coax shield. This current is referred to as common mode current and can introduce noise and induce interference into an otherwise quiet signal.

On a feedline used for transmitting these common mode currents can make the feedline part of the antenna, rather than the feedline just being (the feedline). With most antennas the feedline's job is to get the signal to the antenna, and the antenna is to be the only component that radiates. That's why it is common practice to use a choke or balun at the antenna feed point to help isolate the antenna from the feedline (and/or transform an impedance). You can live without a balun, just know that your antenna system may not be working the way it should. (But it will still work)



Meanwhile, back at the receive antenna, we decided to try using home-brew chokes to help sink any feedline common mode currents and further reduce noise and improve the capability of the receive system. Any common mode current is dissipated as heat in the ferrite. For our receive antenna that heat energy is negligible. How do I know there is common mode currents on the feedlines causing a problem? I don't. But I figure it can only help, so what the hell.

To make the two chokes (Our receive system uses two active antennas and thus, there are two feedlines that will need chokes) I started with two 2.4 inch mix 31 ferrite cores. For coax I used RG-179 that I bought from ebay. RG-179 is 75 ohm, silver plated copper shielded cable and sports a Teflon dielectric. (Many receive antennas use 75 ohm cable) The cable can be wound tightly around the ferrite toroid to form the choke. Each time the coax is wrapped through the center of the toroid the effective resistance to the common mode current is increased. As you wrap multiple turns the resistance goes up greatly. From what I've read the choke works best if the two end of the coax exit the choke on opposite sides, thus the core is wrapped @ half way, then transitions to the other side of the core where the remaining turns are wound. Using "more is better" logic I wrapped as many turns as I could.



Now that the toroids are wound I need enclosures. You don't NEED an enclosure, but I wanted the chokes to be protected and have something to mount and coax connectors to. I was going to go to the store and buy some food containers for enclosures. As luck would have it, one night my wife, Cil (KB3VEN) brought home Kentucky Fried Chicken for dinner. Included with the dinner was coleslaw. The coleslaw was in these small, round, plastic sealed containers. I took one look at the containers and said hmmmm. I ran downstairs and grabbed one of the chokes. The containers were perfect! And that is how Kentucky Fried Chokes were born!



For connectors I was considering either F connectors or BNC connectors. I was going to use F connectors, but I hate F connectors. I found some chassis-mount BNC connectors at the Breese Shooters hamfest, and that was all I needed to complete this project! A little plastic drilling, a little soldering and BOOM! Choke. I'll install them at the club and see if I can tell a difference. If common mode currents are causing any noise issues these chokes should eliminate them. Time will tell.

Disclaimer: I do not claim to know what I am talking about. I know people that DO know what they are talking about, and unfortunately I'm not one of them. Between talking to people, articles and my good friend Mr YouTube I can gather enough knowledge to be dangerous. Actually, I think that is what ham radio is all about. Experimentation is great fun and the best way to learn.



There is a difference between knowing and understanding. Reading a book, you know. Doing, failing, seeing what you did wrong, then doing it right is understanding. So, there may be aspects of this article that are not quite right, but it's as good as I can figure out.

Your mileage may vary.

73, Bob - WC3O - Radio Officer

Ham Radio is a Contact Sport

Grounding to Water Lines

de Jody — K3JZD

Once upon a time, it was common to ground a rig to your incoming copper water pipe. After all, that pipe was running through the ground, and covering a large area. I recall trying that once at my current QTH. But in my case it resulted in an increase in the background noise in my receiver. So I disconnected it. This notice that I recently received from the Municipal Authority of Westmoreland County suggests that maybe water lines should not be considered for grounding your rig. Jody - K3JZD

What May Shock You About Grounding Your Electric Service to Your Water Service

By Alyssa Choiniere

If your water isn't up to your standards, it might be because your grounding wires aren't up to MAWC's standards. We often come across electrical services that have been grounded to water lines.

It's common in older homes.

"Sometimes it's easier to do that than it is to do it the proper way," said Tom Ceraso, the Municipal Authority of Westmoreland County's assistant manager.

But the easier way isn't the best. Grounding your electricity to the water line is not only a violation of your MAWC user agreement, but it can also cause poor quality water and pose a danger to MAWC workers.

According to MAWC's Water Quality Superintendent Mark Stoner, "If your water quality is poor, the grounding issue is likely the culprit."

When a grounding problem is discovered, call a licensed electrician to move the electrical grounding to a separate location. They will typically ground the electricity by putting a spike in the ground in the yard.

The issue of poor water quality is caused by electricity creating a chemical reaction in the pipes.

Usually the piping material used is copper, but it can cause corrosion regardless of what material is used.

"It can also create a safety issue for our guys," Ceraso said.

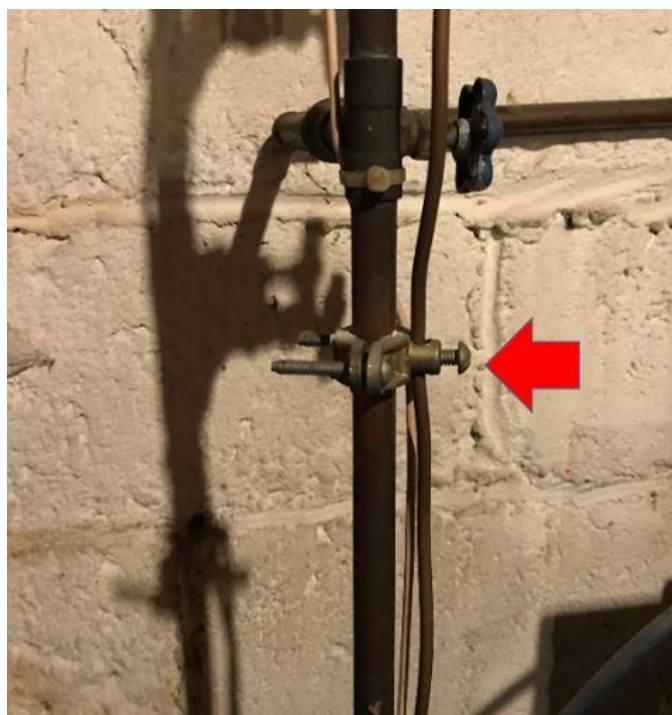
When a MAWC worker is checking a meter, working on a line repair or any other kind of service on your property, they're at risk when the electricity is attached to the water service.

That's why it's also important to hire a professional to check or repair the grounding issue.

Keep in mind it's also a violation of MAWC's rules and regulations.

Section 13.9 of the user agreement says, "All customers are forbidden to attach any ground wire or wires to any plumbing which is or may be connected to a service connection or main belonging to the Authority, and the Authority will hold the customer liable for any damage to its property and change in water quality occasioned by such ground wire attachments."

The issue is becoming less common with newer construction with more awareness about the problems it causes. So save yourself, and your water quality and make sure your electrical service is properly grounded.



Furnaces and Portable Generators

de Jody - K3JZD

During the widespread power outage that we had last winter, Dan - NM3A, shared the problems that he had getting his portable generator to run his high efficiency furnace. At that time, I had suggested that maybe his generator had a floating neutral and that his furnace did not like that. In Dan's case, that was not the problem. His generator had experienced a component failure that resulted in a waveform that his high efficiency furnace did not like at all. New parts cleaned up his generator's output. See Dan's detailed story in the thread on the K3MJW groups.io reflector.

Back whenever that was happening, I was very interested in this. Whenever I had purchased my High Efficiency Amana Furnace (now made Goodman) about 18 months ago, I told the installer to leave the receptacle and plug that I had inserted into the 120VAC circuit that was feeding my furnace. I told him that the receptacle and plug needed to stay there because that is how I isolate the furnace from my house wiring so that I can run the furnace from my generator during an extended power outage. Well, he left my receptacle and plug there as I requested, but then he told me not to ever connect a generator to this new furnace. He said that doing so would damage this furnace. He further stated that whenever they come out to repair it, they will know that the damage was done by having a generator connected. And, upon finding out that using a generator was the cause of my problem that they would charge me for the repairs and would void whatever I had left on my furnace warranty. True? Don't know. But it made me cautious.

I looked at the schematic for my new furnace. As expected, it uses a 120VAC to DC power supply to run all of the electronics. My furnace blower motor is a soft-start variable speed DC motor, which is also run from the electronics rather than from a simple relay applying 120VAC to the motor. And, there are sensors everywhere. I mean everywhere.

My existing portable generator ran my previous high efficiency furnace that was installed in 1985 quite well. My existing portable generator is an inexpensive unit that I bought from Pep Boys quite a few years ago. While I really wanted to continue to use that generator because I had converted it to run on natural gas, I saw that the 60 cycle waveform that it produced was not a real clean sine wave – it was more of a rounded off square wave. Given that this new furnace was not cheap, I did not want to risk attempting to run this new furnace with this older generator.

I looked at various 120VAC to 120VAC power conditioners as a solution – they were not very cheap. As I continued looking and reading reviews, I finally concluded that my best bet would be to purchase a new small 'Inverter Generator'. They are not inexpensive items, but they were less than some of the 120VAC to 120VAC power conditioners that I had looked at. The thought of sitting in a cold house for 'x' days made me rationalize spending the money required for a new Inverter Generator. All of the reviews that I read seemed to point to the Honda Inverter Generators as the gold standard. They were not the cheapest of the various choices. Harbor Freight has one that is about half the price. But I rationalized spending more to get the one that was highly recommended. I bought my Honda EU2200i Inverter Generator from Mayberry Sales & Service. They run an ad in *QST Magazine* every month. And they offer a ham discount. Excellent people to deal with (I never did find out who the ham in the organization was).

Playing it safe, I waited until May 19th to try testing my furnace with this Honda Inverter Generator. I waited until I would no longer really need my furnace for heat (just in case I did let some of the magic smoke out of the furnace). I connected the furnace plug to the EU2200i, crossed my fingers, and asked for heat at the furnace thermostat. My new high efficiency furnace just laughed at me. It did nothing. It never even

started into the power up sequence. From the schematic in the Honda EU2200i manual, I saw that this unit has a floating neutral. Aha. A quick search on the Internet located this article which verified that I would not harm the EU2200i in any way by connecting the 120VAC Neutral to the Ground:

<http://ricksdiy.com/generators/portable-inverter-generator-neutral-ground-bonding-plug-honda-yamaha/>

Using an external Neutral-Ground Bonding Plug like was suggested in that article would consume one of the two 120VAC available receptacles on the EU2200i. I did not want to do that. Nor did I want to modify any wiring inside of the EU2200i. So, I elected to purchase an inexpensive power strip and do my Neutral-Ground bonding inside of that power strip. I then reconnected my furnace to the EU2200i by going through that modified power strip. I then asked for heat at the furnace thermostat again. This time, the furnace came on and I got heat. The furnace ran until the temperature setpoint was reached, and then cycled off. After the temperature dropped, it came back on again, as expected. No smoke came out of the furnace. Mission accomplished. While I would rather have my older generator that runs off of natural gas running my new furnace, this Honda EU2200i is a gasoline sipper. If I let it run continuously while running my furnace, I should get about 8 hours of run time from the one gallon of gasoline that it holds. But, I will most likely just run it intermittently to avoid having to go out and find more gasoline.

So, do all of the newer high efficiency furnaces require this grounded neutral? Pennsylvania has a grounded neutral – do all states have that? Is it important, or is checking for a grounded neutral that just a trick that the furnace manufacturers use to protect against a dirty generator causing some kind of damage that they would have to cover under their warranty. Maybe there is a jumper in the furnace that stops the control circuit from checking for a grounded neutral. But if there is, and you were to alter that, and it was discovered by a serviceman, then I suspect they could void your warranty. Would my older non-inverter generator have run my

furnace just fine? Don't know the answers to any of those questions. This play-it-safe external neutral-ground bonding just made the most sense to me.

Caveat emptor : This is being published as a FYI, not as a recommendation. If you make similar modifications, it is at your own risk. Do your own research based on your generator and your furnace. Your results may vary. 120VAC kills. Get help if you do not know exactly what you are doing with your house wiring.

WARNING : Do not ever connect your generator to your furnace without first isolating the furnace feed circuit from the rest of your 120VAC house working. By doing it like I did, interrupting the 120VAC feed to the furnace circuit and adding a three prong plug at the furnace side and a three prong receptacle at the 120VAC feed side, you are accomplishing that isolation without needing to install an expensive Transfer Switch. You are doing the transfer whenever you unplug the furnace from the 102VAC house wiring and then plug your now isolated furnace into your generator (by the way, since your portable generator needs to be outside in clear air, it is best to use a 14 gauge extension cord back to the furnace to minimize voltage drop).



Jody – K3JZD



THE SKYVIEW 13 COLONIES GANG AT K3LR

Special Skyview Memberships Deal at the Swap & Shop

It is expected that Skyview will once again offer a Membership for the rest of 2019 as well as for all of 2020 for the price of the 2020 Membership at the 2019 Swap & Shop.

So, if you are a reader who is looking to join the active and dynamic Skyview Radio Society, there is no better time to do so.

FT8 Mode

de Jody - K3JZD

Many consider FT8 to be an illegitimate mode. However I think that those who turn their nose up at using this new digital mode of communication are missing out.

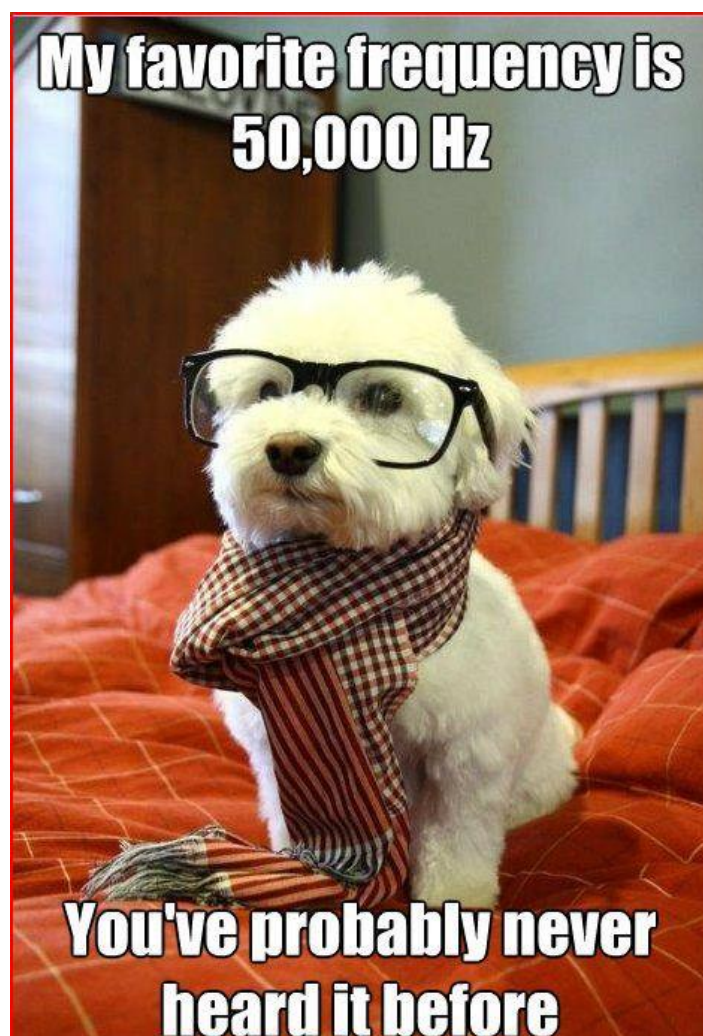
While it is not a conversational mode, it is a legitimate way to make contacts. True, once you have put in the effort to get your station all setup to use FT8, and have learned how it works, it is not terribly complex to utilize.

I will typically revert to using FT8 whenever I have some free time available in the evening and I am a bit brain dead from the day's activities. I will typically pick what looks like an open spot on 40 meters and call CQ. I am always amazed at the variance in the FT8 contacts QSOs that I will log.

During a two hour period of calling CQ one evening, I logged QSOs from stations in the following locations in this order: Venezuela, Cuba, NJ, Quebec, NJ, GA, WI, VA, CT, PA, Russia, WI, AL, IL, IA, OH, Quebec, Netherlands, MO, Russia, WI, KY, Ukraine, Netherlands, Lithuania, VA, TX, TX, TX, KY, ME, and Bosnia-Herzegovina.

This was all done using 25 watts and a simple 40m dipole antenna. Get setup and give it a try sometime. There is lots of guidance on the Internet to get your particular radio setup to use this digital mode - just Google on FT8.

Jody -K3JZD



**I saved this space for
YOU**

But, I did not get anything from YOU

**But, I will hold it open for
YOU
to use in the next issue**

Submissions to : K3JZD AT ARRL DOT NET

Ham Ads Accepted

Have you bought some new equipment and need to sell something to make some room in the shack?

First try the real-time K3MJW Groups.io Reflector .

If that does not work for you, or if you want to include pictures, you can advertise here.

This newsletter goes out to other clubs and is also available to anyone who wants to go to the web site to get it. So, you may reach a larger audience.

Submit to : K3JZD AT ARRL DOT NET

Newsletter Fillers or ??

While I will put some stuff in here that I have found in another club's newsletter or on the Internet, I would prefer to put your stuff in here instead.

I am always happy to get articles which discuss your opinion on some new radio, antenna, or other ham gear that you have purchased. I am not looking for QST type technical dissertations - am looking for operating experiences with it. What's great? What's good? What is not so great?

I am always happy to get your pictures: Shacks, radios, mobile setups, antennas, customizations, etc.

Lots of new folks will benefit from you sharing your experiences.

Welcome New Members !!

Welcome the following Skyview Radio Society Members who have joined us since publishing the June 2019 newsletter:

**KC3GPM - David Bouknight
Latrobe**

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.

Skyview Radio Society Roster as of 31JUL19

NM3A	WA3HGW	KC3LZH	KD4SBJ
WB3ACC	KA3HPM	N2MA	KB3SOU
W3ANX	KB3HXP	KC3MBM	K3STL
KC3AY	AG3I	KC3MIQ	KB3SVJ
NA0B	KC3IIO	K3MJ	N3TIN
N3BPB	WA3IKQ	KC3MNN	W3TLN
W3BUW	W3IU	KC3MNO	N3TTE
KC3CBQ	K3JAS	K3MRN	AG3U
W3CDW	KC3JBS	N3MRU	NS3U
K3CLT	N3JLR	KG4MSB	N3UIW
K3DCG	KA3JOU	KS3N	K3VRU
KC3DIA	N3JPB	KB3NSH	W3VYK
KC4EGG	ND3JR	AJ3O	N3WAV
KC3EJC	KC3JSF	WC3O	N3WMC
AB3ER	KB3JXG	K3OGN	W3WTJ
KC3EVT	KC3JXO	KB3OMB	KZ3Y
KB3EYY	K3JZD	KB3ORO	N3YJN
KC3FEI	KC3KEI	KR3P	KB3YJQ
K3FH	WA3KFS	NK3P	W3YNI
K3FKI	KB3KHR	W3PRL	W3YNX
KC3FWD	AC0KK	AE8Q	K3ZAU
N2GBR	N3KNB	NU3Q	
KC3GIL	W4KV	WQ3Q	
KC3GIN	KC3KXG	NJ3R	
KC3GPM	WA3LCY	KB3RBV	
AB3GY	KC3LHW	K3RMB	
KC3GZW	KG4LLQ	W3RRK	
NC3H	KC3LRT	I2RTF	
WD3HAY	AB3LS	KA3RXY	
KB3HGJ	KC3LVC	KQ3S	

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

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.



Cell Phones and Ham Radio

"Cell Phones allow you to talk to your friends.

However, Ham Radio allows you to make new friends."

Ashton Feller - KD9HRG - Age 13
(From June 2017 CQ Magazine)

**** Skyview VE Testing ****

For EVERYTHING that you need to know, go to:

<https://www.facebook.com/SkyviewRadioSocietyHamRadioTesting/>

(This will tell you what you need to bring with you)

Skyview Radio Society Contact person: Bob Worek, AG3U
e-mail: ag3u at arrl.net 724-410-1028

Location: Skyview Radio Society clubhouse. 2335 Turkey Ridge Road. New Kensington, PA 15068.

Directions, and map are on
<http://www.Skyviewradio.net>

Please schedule in advance. While walk-ins accepted, exam may be cancelled if no candidates are scheduled.

>>>>> WARNING <<<<<<

A new 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.

This Space For Rent

**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

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

Even if you don't speak German, here is an interesting ham radio documentary from back in the days when everyone seemed to wear a necktie and ham stations had lots of modules and knobs.

<https://www.facebook.com/watch/?v=696786070453310>

Is the Band Dead?

Check here to find out if there is any activity:

<http://tinyurl.com/y7drkwxk>

Here is a clever one—A Selfie Stick without the Stick
You have to watch the video to appreciate this one.

<http://tinyurl.com/y2hhk42r>

Is Ham Radio a Hobby, a Utility...or Both?
A Battle Over Spectrum Heats Up
(de Chuck - K3CLT)

<http://tinyurl.com/y3on3yob>

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

Issue Wrap-up

I'm sure that you skipped over some of the stuff that you were not really interested in. Hopefully there was enough in here to make it worth opening.

An abbreviated issue this time. It is Summer and there are many more things to do during our limited Summer beyond writing stuff for this newsletter.

As usual, not much real club boilerplate or timely club news in here. The club web page, the club Facebook page, and the K3MJW Groups.io reflector all have the basic club info and the more timely club news. This newsletter is really for 'all else'. So, send me your 'all else' stuff.

Jody - K3JZD

Previous Issues

Previous Issues of the Q5er are available at

<http://www.nelis.net>

Next Newsletter will be Oct 1, 2019
Closing Date For Submissions : Sept 15, 2019
K3JZD AT ARRL DOT NET

Here is what I feel is a very worthwhile
Facebook group :

<http://tinyurl.com/y873zl6c>

It is called "*Amateur (Ham) Radio on a Budget*", and is a very dynamic group.

Lots of people exploring lots of ideas and
lots of new people sharing experiences.

Kind of a on-line Elmering Group which
would be helpful to new hams.

Jody - K3JZD

Q5er – The Official Newsletter of the Skyview Radio Society



Q5er Editor & Publisher: Jody Nelis - K3JZD

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email your comments and article submissions to: **K3JZD AT ARRL DOT NET**



That's Easy . . .

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

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

Subscribe to K3MJW **groups.io** 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 ??

Where are the pictures of your shack ??