



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

### Skyview Happenings

Skyview Membership has hit a milestone this year. We had four new members join at the November meeting, which put us at the 100 member level. Keep the momentum going and respond positively whenever you get your renewal letter. (When this was mentioned at the meeting, Mark - W3RRK said that he could remember when there were only nine members. So, we must be doing something right !!!)

The first Tuesday business meetings continue to be well attended. The fourth Tuesday Elmer Nights continue to be well attended. The second and third Tuesdays are both social nights and are also well attended. I heard someone say it might be time to start to think about extending the building. Join in on the Thursday night 2 meter net to hear about what is going on when. And follow the messages on the Yahoo K3MJW Reflector.

As the bands continue to deteriorate, there is more interest in digital modes. Someone generally has a digital mode up am running on one of the radios in the radio room most every Tuesday night, with lots of 'how to' discussion taking place.

As we get into the Winter season, we no longer have the public service activities that have filled our weekends during our warm n=months. We now have various weekend contest activities that occur up at the joint. While Skyview is pretty competitive in these events, there is always opportunity for newbees to jump in and do some operating during these events. Do not be afraid to come up and join in on these activities.

The Annual Skyview Family Holiday Dinner will be on January 27, 2018. Details about this event were in with your Membership Renewal information.

If you operate the radios in the Skyview Radio room, you know that we now have a pretty complex setup in there. Four operating positions. Amplifiers, tuners, band pass filters, and eleven antennas to choose from. One has to be particularly careful about what band and what antenna is in use at each of the operating positions. The IC-756proIII transceivers that we now have at three of the operating positions have sensitive front ends in their receivers. We have had to send several out for repair due to receiver damage that may have been caused by overload from another transmitter running on the same band. And we have had some problems with transmitter and amplifier damage that could have been caused by being tuned up without any antenna connected. In addition to the repair costs, we pay very high shipping costs. We have purchased a sophisticated antenna switching system which we feel will eliminate a lot of our repair costs as well as add convenience by simplifying. However this system cost around \$3000. This is a bit more than our budget can handle. If you would like to make a Tax Deductable Donation that would go toward the purchase of this antenna switching system, send your check made out to *Skyview Radio Society* to the above address, and note that your donation is for this antenna switch.

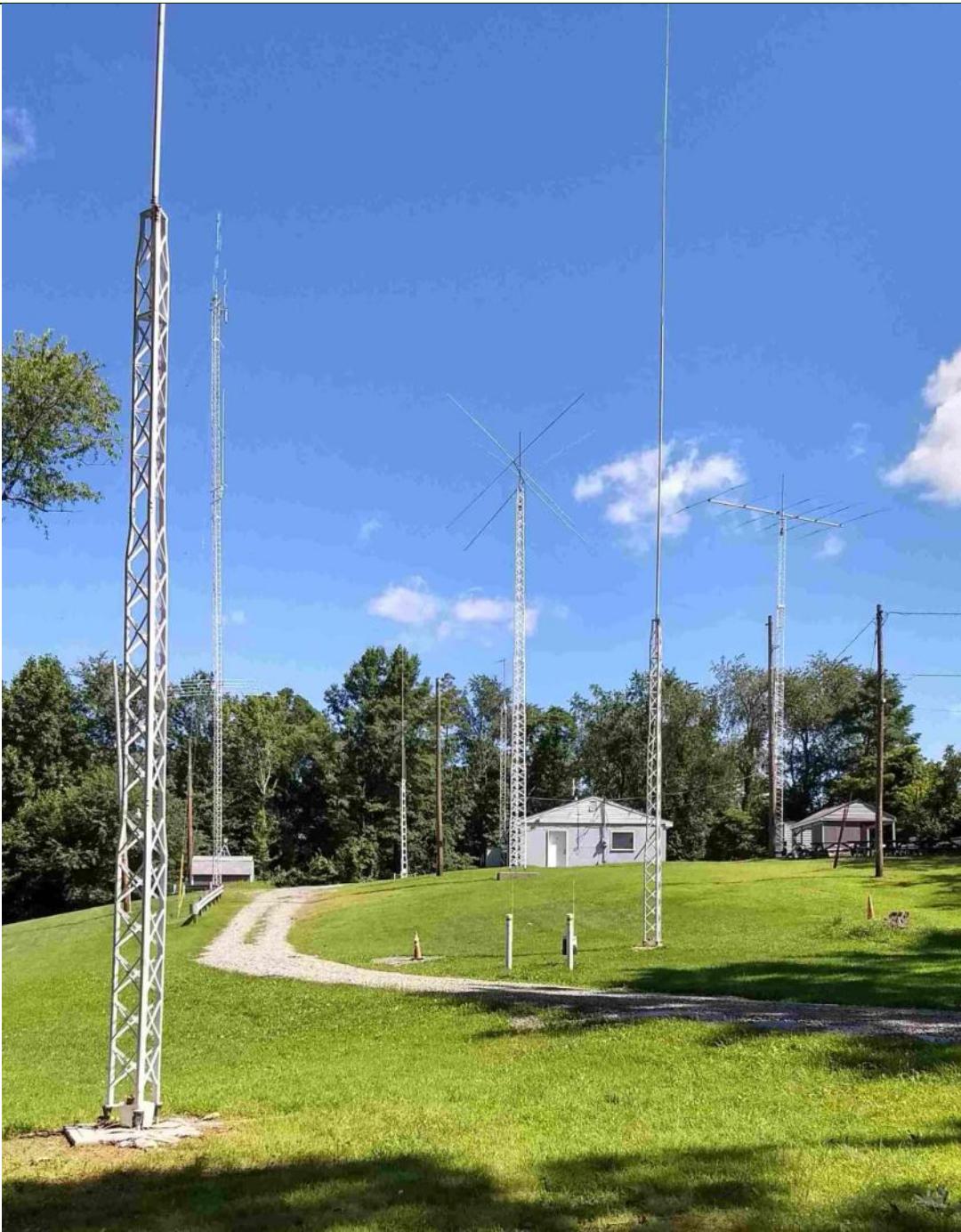
December 1, 2017

- HAM ENGINEER REMINICES
- FT8 DIGITAL MODE
- Trying New Digital Modes
- SKYVIEW MEMBERS
- A LITTLE SOTA
- CHASING THE CHOO CHOO
- QRP CONTESTING
- ROTATOR CONTROLLER LIGHT
- AND MUCH MORE . . . . .

**Sunspots?**  
**I don't need no stinkin Sunspots.**  
**I have 40 meters.**

### Inside this issue:

FROM THE EDITOR	3
ARES/RACES REPORT	4
LEARNING CW	6
FEATURED HAMSHACK	9
WINTER FIELD DAY	11
MODELING WITH LT SPICE	15
INTRODUCING THE SRRP	26
NEW MEMBERS	29
KUL-LINKS	30



## **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 Yahoo Reflector: <https://groups.yahoo.com/neo/groups/K3MJW>  
(You must be logged into your personal Yahoo Account to get into the Skyview Yahoo Reflector )

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

Guests are always welcome !!

## **From the Editor**

I have never paid much attention to the QRZ.com “Expired Callsigns” feature as I do not have any desire to shop for a vanity Callsign. But, out of curiosity I took a look at what is there.

What I found most interesting was the listing of “Callsigns that will forfeited within the next 30 days”. Those are the Callsigns that are nearing the end of the 2 year renewal grace period. Let it go past 2 years and you will have to test again if your interest resurfaces. Since there are email and snail mail renewal reminders that get sent out, these are the folks who have ignored them.

I looked at the list of Callsigns soon to be forfeited in “Area 3”. What struck me was the large list of sequential KA3 and KB3 Callsigns that were on the way out. Many of them were contiguous Callsigns that were from the same state and town. The list of “Callsigns that have expired in the last 30 days” in “Area 3” looks pretty much the same. I have to surmise that these hams came about as a result of well intentioned ham radio classes in those locations. But, sadly those folks probably never joined a club or got on the air. Some may have explored 2 meter repeaters, but found a lack of excitement there.

And now they either are gone, or are about to be gone.

There is starting to be some talk about either expanding the Tech license to include some more HF privileges or coming up with another entry level license that has HF frequencies. I suppose either of them could help. But since we are nearing the bottom of the sunspot cycle, I wonder if that will really add that much excitement. I suppose that if the HF weak signal digital modes were part of the new privileges, it would stand a better chance of success.

Since I operate a fair amount of CW, I run into a lot of fairly new hams who have taken it upon themselves to learn and use CW. They seem to be enjoying the fruits of their labor and seem to be pretty enthusiastic about the hobby. Hopefully at least the General Class portion of the CW bands will be made available in any new entry level privileges if they do come about.

I hope that you enjoy this issue.

Jody—K3JZD

## **APRS Followup**

In an earlier issue, I wrote about my poor results whenever I was trying to use APRS (Automatic Packet Reporting System) with a TNC and 2-Meter handheld. I wrote that I concluded that whenever I'm doing SOTA (Summits on the Air) Activations, the best approach would be to just use my cell phone to send out my APRS Position Messages over the cell phone network instead.

Well, I have now tried doing that on some SOTA Activations. Even though I was careful about getting my phone's GPS turned on and set to the highest accuracy, and doing that well before I started up the APRS App on my cell phone, in all instances I found that there were miles-away, way-off, 'location spots' being shown on the APRS Map. These incorrect points were so far off that they made determining my actual position impossible. Plus, cell phone service is spotty or non-existent at some SOTA locations

So, while it could be my cell phone GPS that is at fault, I am going to completely forget about using the APRS service to track me whenever I'm out on my SOTA adventures.

Jody - K3JZD

## ARES/RACES Report

de Rich - WQ3Q



Did you attend the **SET** drill on October 7<sup>th</sup>?

Well, did you?

The experience was a good sample of the type of coordination that would be necessary should there be a need for ham radio ops to lend a hand in communications with emergency groups. If you missed it, come to the next one.

With the winter weather moving in for a while, I will take little jog from ARES content for the next two articles to cover two organizations in which we should all consider participating, especially if you're a weather-geek. They are involved in communications (though not always in emergencies) in assisting governmental groups. Both CoCoRaHS and SKYWARN are two organizations that are internet and radio-based options for us hams to participate in as well. With a little help from their own web page I'd like to cover CoCoRaHS first.



### What is CoCoRaHS?

CoCoRaHS is an acronym for the **C**ommunity **C**ollaborative **RH**ail and **SN**etwork. CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail, and snow). By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, our aim is to provide the highest quality data for natural resource, education, and research applications. They are now in all fifty states.

### Who can participate?

This is a community project. Everyone can help, young, old, and in-between. The only requirements are an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can affect and impact our lives.

### What will our volunteer observers be doing?

Each time a rain, hail or snow storm crosses your area, volunteers take measurements of precipitation from as many locations as possible. We observers use various inexpensive tools to do this. These precipitation reports are then recorded on our Web site [www.cocorahs.org](http://www.cocorahs.org). The data are then displayed and organized for many of our end users to analyze and apply to daily situations ranging from water resource analysis and severe storm warnings to neighbors comparing how much rain fell in their backyards.

### Who uses CoCoRaHS?

CoCoRaHS is used by a wide variety of organizations and individuals. The National Weather Service, other meteorologists, hydrologists, emergency managers, city utilities (water supply, water conservation, storm water), insurance adjusters, USDA, engineers, mosquito control, ranchers and farmers, outdoor & recreation interests, teachers, students, and neighbors in the community are just some examples of those who visit our Web site and use our data.

By providing your daily observation, you help to fill in a piece of the weather puzzle that affects many across your area in one way or another. You also will have the chance to make some new friends as you do something important and learn some new things along the way. In some areas, activities are organized for network participants including training sessions, field trips, special speakers, picnics, pot-luck dinners, and photography contests just to name a few.

## How can you sign up?

I've done this for several years and enjoy seeing how the weather had affected my little corner of the world. And, I know that professionals in the field are using this information for a number of projects that benefit all of us. So, join in. It is an easy way to delve into some of the nuances of weather observation while offering useful information and having fun too. Just click on <https://www.cocorahs.org/Application.aspx> to sign up as a CoCoRaHS Volunteer Observer or download a .pdf version of the application and return it as soon as possible.

73,

Rich WQ3Q

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A little black box full of jewels and rocks,  
with lanterns that flicker and glow,  
make lighter the gloom in my little back room,  
where often I haste to go,  
an anthem it peals of whistles and squeals,  
and of voices so ghostly and queer,  
that you'd never decry, should you chance to pass by,  
what a brotherhood foregathers here !

Each separate tone has a soul of its own;  
each voice is the voice of a friend,  
united through space in this gathering-place  
at the radiant rainbows' end,  
reverberant sounds ride the wave that rebounds,  
like the waves of the sea, from afar,  
reporting the doings, the comings and goings of  
brothers, wherever they are.

A curious band, spread over the land,  
yet joined from equator to poles,  
disperses the gloom in each little back room  
by this magic communion of souls,  
I could part with a lot of things that I've got,  
but I'll carry my love to the tomb,  
of that little black box and the joys that it unlocks,  
when I enter that little back room!

An Old Iimer

## Modern Car Caveats de Jody - K3JZD

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A recent article by Jeff Reinhardt - AA6JR published in CQ Magazine discussed some things for hams to keep in mind as they install radios in today's vehicles.

I thought that a few things from this article were worth sharing:

Re Hybrid Cars: Before poking around a hybrid car, be aware that there are substantial cables that carry hundreds of volts and lots of current. Drilling a hole without knowing what's behind that panel could be a *very dangerous* thing to do. High-voltage storage batteries are now often tucked into nooks and crannies, so caution is the byword.

Re Grounding: You do not want to take the ground lead to the negative side of the battery. New cars have an IBS (Intelligent Battery System) that limits how much juice goes into the battery. You'll note that NOTHING in the car is connected to battery ground. There's a big fat wire that goes to ground and it has a Hall Effect sensor on it that monitors current flow. The IBS tends to keep the battery voltage low and not charge it for long periods, as the alternator sucks engine power that reduces mileage. Every now and then, it will kick up the voltage to charge the battery. You can connect (the radio) to the plus side of battery. Take your "ground lead" to a big fat ground point back by the radio. Every other accessory on the car goes to the chassis ground points. If you take the negative lead to the battery negative side, the IBS doesn't realize that current is flowing out of the battery to your radio, and won't charge the battery. Eventually you'll run the battery dead even if the engine is running.

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Ham Radio is a  
Contact Sport

## Reminisces of an Engineer – Ham

## Episode 4

de Joe – N3TTE

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Over the years, there were numerous instances where my ham radio background and “ham-genuity” came in handy on the job. I’ve picked some interesting ones from each company I worked for to describe here

### Unconventional Solutions

One trait I’ve noticed that is very common among those dedicated to the art and practice of amateur radio is something I call “ham-genuity”.

“Ham-genuity” is the ability to come up with clever, unconventional solutions to pressing problems quickly.

As an example, I’d like to offer a situation that happened to me about ten years ago, shortly after I started a new job.

One Friday morning, another engineer was going around the group asking if anyone had electrical tape. I didn’t at the time, but later added it to the stash of tools in my cubicle.

The electrical tape was needed to repair a cell phone charger cord that a puppy had chewed through the night before. The owner of both the puppy and the cell phone charger was a rather attractive young woman in our drafting department. And since it was a Friday, she was

dressed for a clubbing date immediately after work and did not have time to locate and buy a replacement charger until after the weekend. (I was polite and didn’t ask for details about her weekend plans!)

About an hour later, I went to the break area for a cup of coffee and noticed the plastic coffee stirrers beside the coffee station; the hollow plastic tube kind.

So I took one of the coffee stirrer’s, cut two 1 inch (25.4 mm) pieces, and used it to repair the cell phone cord. (This was a low voltage DC cord, of course.) I stripped the insulation from the broken pieces, twisted the bare conductors together, placed the coffee stirrer pieces over the connections, and wrapped everything with “Scotch tape.”

Well the charger worked well enough to get her through the weekend, and the other engineer was impressed.

As an aside, for anyone who does fly fishing, the coffee stirrers work very well for tying nail knots to attach a leader to your fly line. But that’s a different hobby!

.Joe Birsa – N3TTE

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## Learning CW

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*ED: Normally I avoid republishing anything that was posted on the Skyview Yahoo Reflector. However the following comments, which followed a lively discussion about which of the On-Line CW Learning Tools were the best to use, seems to me to be appropriate for a wider audience. So here it is.*

All of the tools that have been discussed are ‘right’. The main thing is practice practice practice. Different folks like different methods.

Whatever works for you is the best one. Seeins as how most all methods are FREE, feel free to try each.

Ray noted that is was cool to watch TG oping CW. I was

not always a CW kinda guy. For me, I had the extraordinary pleasure of sitting behind and watching George, N3GJ and Doc, K3MD operate.

I'm fairly good today, but I still don't think I am anywhere near in the same league as those boyz.

Killer cw ops, they are. Them's were my inspiration. Add to them Bill, W3RSR/SK (The Old Timer) gave me the push to re-learn CW. I've never looked back. For many, CW is practically a religion.

Then you hear great stories of blind hams love for CW, and stroke victims being able to still communicate via CW.

As far as contesting, and I fully understand not all are interested in contesting, if you ask a ham that contests with phone, CW and RTTY they will just about ALL say they like CW first, then RTTY, then phone contesting.

Then there's the DX aspect.

Picture it: Years ago during last sun spot minimum, up the joint. Everyone was sitting around with their fingers up their noses because the bands were dead. All except for the Old Timer, that is. Bill was workin DX no problemo. He had that old Vibroplex bug that he took a hacksaw to (converted to iambic, sort of...), holding it down with one hand and slapping it around like he was having a conniption with the other. "BINGO BUCKO!" he'd say. That was Lebanon, or that was Tonga, or wherever. It was great. I really miss that old coot.

Then there's the conversational ops.

To them CW is as much a primary language as anything. You hear them on the bands just sending right along. That was Jack, W9UK/SK. Jack would hop on 40, 80, 160 or whatever and meet up with buddies. These are the folks that send/receive without a second thought. It's as easy for them as just talking.

That is NOT how ANY of them started out. They all started out JUST LIKE YOU! Assuming you practice and get good enough to get on the air, your first QSOs you'll forget to breath! You'll be more nervous than a long tail cat in a room full of rocking chairs! It's all good though. CW ops know well that you are doing your best.

Next:

This is important. CW buddies. It is much better to work with a buddy that is in the same boat as you. It sounds like we could have critical mass here. Gang up with one or more and work together.

CW buddies !!

I shan't lie to you. It's a bitch to learn, but there is a big fat payoff down the road. You'll just have to trust me.

Practice Practice Practice

Cooky — WC3O

## FT8 Digital Mode

*ED: Rich - K3SOM provided the following advance description of the program that he presented at the November 9th meeting of the Beaver Valley ARA. I thought that it captured the essence of this new mode very well and was worth repeating here just as a FYI.*

Continuing with our BVARA Presentation Series this year, our topic this month deals with one of the newest digital modes that is setting the bands on fire. It's called FT8 and has been included in the latest release of WSJT-X by Joe Taylor, W1JT and his colleagues. As the 10, 12, and 15-meter bands continue to decline, hams have turned their attention to FT8 to snag solid domestic and DX station contacts on almost every HF band with many stations using only 25 watts or less.

Because of the faster pace of FT8 when compared to JT-65 and JT-9 digital modes, you'll be in for some lively action as hams call you not just on your frequency but from anywhere within the suggested sub-band for this new mode. Once you begin your first response, the software takes over the next several sequences until you decide it's time to send the final '73' transmission. We'll look at the software windows that are unique to FT8 operating and review how to select the initial setup parameters to get you started. Once you've tuned up, checked your clock for the required accuracy, and started up the application, you'd better put your seatbelt on because there's going to be lots of operating action.

But wait, there's more! Web-based sites automatically receive reports from you and other hams every 15 seconds that enable you to see who can hear you on a navigable world map overlay.

*de Beaver Valley ARA eQRM Newsletter*

*ED: Lee - K3DMG, an old friend of mine, recently had this to say about FT8 : I got hooked on FT8 in late August and have managed to work about 3,500 Q's since then. It's an interesting mode and it sure opens up some bands that would otherwise be considered DEAD. I was on 10M CW, but there was not a peep on CW. I found that all of DX was on 10M FT8. I haven't totaled up my DXCC count on FT8, but it has to be > 100 already.*

## The Electronic Parts Business Is Pretty Tough

de Jody - K3JZD

The following is from the Wireless Association of South Hills WASHRag:

*MCM Electronics, in business for 40 years, will close two plants and its corporate headquarters in Ohio and lay off more than 90 workers, the Dayton Daily News reported earlier this summer. The company, which carries an electronics inventory of more than 300,000 items, including 3-D printers, tools, wire, cable, and other items, has been a Dayton Hamvention® vendor.*

*The layoffs will begin at the end of September, and continue through the end of the year. On its Facebook page, MCM has announced that it is partnering with Newark element 14, and that MCM products will become available via the Newark website, which is not yet available.*

With the demise of the local Radio Shack stores, we builders have to rely on mail ordered tools and electronic parts. I have bought from MCM many times. They have reasonably priced house branded tools and test equipment. Often I was able to obtain all of the parts that I needed for an entire project from MCM. And their shipping and handling was pretty reasonable.

One thing that might have contributed to demise of MCM was their catalogs. They had a good searchable web site that allowed me to find anything that I needed. But, they still mailed me very frequent catalogs. While I would go through some of them and circle a few things that looked interesting, I rarely ended up ordering those items. I relied more on going and getting what I needed whenever I needed it. So, their catalog expense did not have a great payback in my case - I no longer maintain a file cabinet full of catalogs, so they get pitched. I always thought that MCM and element 14 were both actually consumer divisions of Newark. So, maybe this is not such a big transition. Maybe the MCM folks who are being cut are the ones who have maintained the separate MCM web site and produced the MCM catalogs.

I have also bought electronic parts and tools from Newark and Newark element 14, as well as from Digi-Key, SparkFun, Adafruit, Allied Electronics (yes, they are still around), Jameco (another oldie), LeatherUp (wait, wrong hobby), Mouser, Parts Express, and some others that I'm probably forgetting. Most of these are on my go-to list

because they support hobbyists by either having a low minimum order amount, do not require any minimum at all. While availability is always important, often my where to buy decision is based on shipping and handling costs. It is hard to bite the bullet and pay \$9.95 Shipping and Handling for a \$0.99 part. But I have done it.

Whenever I need a part, I will frequently Google on the manufacturer's part number rather than go to any particular supplier to hunt for it. That will usually provide me with several options. Sometimes Google will find the part on eBay. I will generally look at the eBay seller's listing. Many of them offer free shipping on a quantity of one. And if they are in the county, they will ship pretty fast. So, they are hard to ignore. I'm sure that the conventional electronics parts suppliers see eBay as "their "Walmart". However, due to the many counterfeit electronic components out there, I tend to shy away from eBay for my solid state parts.

So, even with the demise of MCM, there is still some competition for the nickel and dime hobbyist business. But, it is small volume and spotty. And we may see some more existing the business.

Jody - K3JZD

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## Newsletter Fillers ??

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.

**Show Me Yours and I'll Show You Mine**

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**The Featured Hamshack for this issue belongs to:**

**No contribution for this issue**

**This feature will soon expire due to lack of interest**

**Send Your Pictures In Now While You Still Can !!!**

## Drones Beware de Slashdot.org

schwitz1 found this story [in the Wall Street Journal](#):

*Daniel Parfitt thought he'd found the perfect drone for a two-day mapping job in a remote patch of the Australian Outback. The roughly \$80,000 machine had a wing-span of 7 feet and resembled a stealth bomber. There was just one problem. His machine raised the hackles of one prominent local resident: a wedge-tailed eagle. Swooping down from above, the eagle used its talons to punch a hole in the carbon fiber and Kevlar fuselage of Mr. Parfitt's drone, which lost control and plummeted to the ground... "It ended up being a pile of splinters"...*

*These highly territorial raptors, which eat kangaroos, have no interest in yielding their apex-predator status to the increasing number of drones flying around the bush. They've even been known to harass the occasional human in a hang glider... Camouflage techniques, like putting fake eyes on the drones, don't appear to be fully effective, and some pilots have even considered arming drones with pepper spray or noise devices to ward off eagles.*

*One mining survey superintendent said he's now lost 12 different drones to eagle attacks, costing his employer \$210,000. Another drone was actually attacked by nine different eagles, and its pilot estimates eagles are now attacking 20% of all drone flights in rural Australia.*



Some eagles are being trained to take down drones:  
<http://tinyurl.com/jf5c4eo>

## Icom IC-756proIII de Jody - K3JZD

The following was found in the *Nittany Amateur Radio Club Newsette* (State College, PA):

*The club's Icom 756 Pro III transceiver needs to be replaced soon. Word has been received that Icom will no longer support or repair this unit.*

Guess it had to happen some day. There are lots and lots of old unsupported transceivers out there. But, the 'newer ones' like the IC-756proIII are more complex, and have a whole lot of components tightly packed inside the box. I was into mine to add in a connection for a pan-adapter, and saw how much was packed in there. Fortunately that just involved my making a connection to a jack that was already on a readily accessible IF board and finding a way to get the cable out.

The older transceivers were simpler and less congested. I just replaced the dial lights in my 1975 vintage Kenwood TS-520S. That was more of a mechanical job, and there was a little working room inside that box. Next I need to see if I can fix a digital display problem that my 1979 vintage Kenwood TS-120S has. That box is a bit smaller, so I expect that to be more of a challenge to work on.

While we appreciate the additional features, bells,, and whistles that come with the latest and greatest transceivers, I guess it is time to realize that they are becoming disposable electronics gear that is not likely to be around for 40-50 years due to cost of repairs when supported and difficulty of repairing when become unsupported.

Jody - K3JZD

### ----- Famous Hams -----

I'm retiring this feature.....

"Famous" is really in the eye of the beholder . . .

Most of those that are on the lists that you can find with a Google search are "Famous" only because they have a some kind of a public image that makes them well known.

In reality, everyone who has taken up an interest in this obscure hobby is 'Famous' because they appear in qrz.com

## 2017 Winter Field Day

de Richard — N2GBR

### *Background (from the WFD association web-page)*

*Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done each summer but with some additional unique operational concerns.*

*We believe as do those entities of ARRL Organizations like ARES & RACES that maintaining your operational skills should not be limited to fair weather scenarios. The addition of a Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFDA is open to all licensed amateur radio operators worldwide.*

*Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental conditions found in the US and Canada during the spring, summer, fall, and winter.*

*Preparedness is the key to a professional and timely response during any event and this is what local and state authorities are expecting when they reach out to the emergency service groups that offer their services.*

*If you are serious about emergency communications as we are; we welcome you to join us for our yearly event. We are sure that you will find this event a pleasant change and challenge to that of a normal summer time field day.*

### **My Effort**

Field day is not really a contest, usually we spend some time figuring out how to get Antenna up and running, some radio interface issues pop-up, along with some logging issues.. Then we have to get “bums in seats” and operate as much as possible through a Summers’ weekend. Do that and add Winter-conditions and it becomes “a bit” harder. Here’s a short overview of my first Winter Field day.

I pitched my Tent in what has become my usual location by the Skyview Fire Pit.. there was a little snow on the ground and it happened to be a little windy.. Which would come into play during the night...

Using my normal SOTA approach of finding a redi-seat or ‘taking a Knee” was not good and while comfortable for 30-45mins... it became increasingly un comfortable through the day. Slim pickings on the bands, but that is always the way when running QRP into compromise antennas.. perseverance pay off.. It was cold, but not too bad. It dipped to 10F overnight but I was equipped for that.

During the night it became rather windy and the wind just whistled through my three-season tent.... So it became a nice refrigerator! My toes were cold around 4am... but I've had worse nights in the field so no issues.. I was happy to get the coffee on at 6am!

Jody came around in the morning and John also looked in to see if I was still alive.. Jody helped with a couple of CW qso's.. but again he found the operating position very uncomfortable..





## Results:

As you can guess with radio conditions as they have been this year and operating at QRP power levels it was not a dynamic contest environment. I logged only 34 QSO's mostly on SSB with help from Jody on a couple of CW contacts.

11<sup>th</sup> position in my class was pretty good. The major take-away from the effort was my operating position! I needed a more comfortable layout! I took the approach I do for SOTA in that you can be uncomfortable for 30mins and get it done... that doesn't work for an all-day event!

I picked up bonus points for running QRP, using battery power, and being "outside".

CallSign	Cat	PH	DI	CW	Multippliers	Power X	Bonus Pts
19 WA2FON	10	27	5		11	4	6000
23 ND9Q	10	9	36		8	4	4500
27 AF4O	10	35		32	5	4	4500
36 KD4ADC	10	46	27		4	4	4500
38 KD8LBS	10	40	12		6	4	4500
39 KG9DN	10	30	2	10	7	4	4500
43 W9WB	10		110		3	4	4500
50 KOGUZ	10			34	4	4	4500
51 KC9WIX	10	5	24		5	4	4500
52 AA3WB	10	24	6		7	4	4500
64 N2GBR	10		32		2	4	4500
69 K3HX	10				29	4	4500
73 KC2WI	10	41			2	4	4500
79 KJ4M	10	13		5	3	4	4500
90 KG5ARD	10		19		1	4	4500
92 KD8VRX	10		18		2	4	4500

The next Winter Field day is: January 27<sup>th</sup> - 28<sup>th</sup> 2018.

For more Information: <https://www.winterfieldday.com/>

Richard Jones // N2GBR



## Tough Day to get back in the Saddle..

de Richard - N2GBR

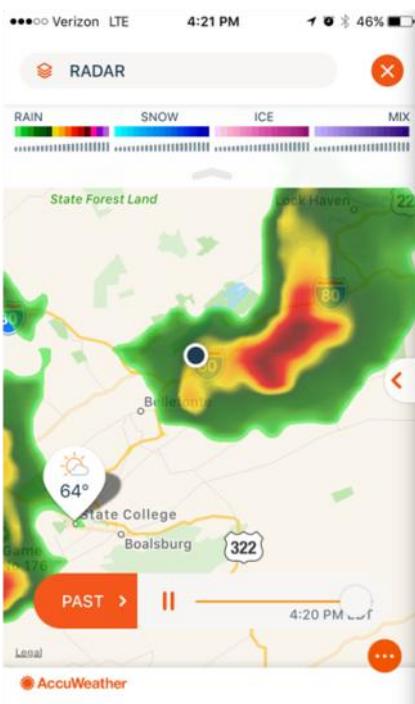
.. after hitting MG [Mountain Goat] in the spring I needed a break... June VHF Contest, Field-day and then K2M operating... house sale and finally moving the last of our stuff to PA and then the end of summer and work starting to really pick up again (so business travel) I finally managed to get out today.... ('Today' being 09/08/17).... in probably with the worst radio conditions of recent memory.

In discussion with Mark NK8Q I headed to a hill near State College PA... on my way home from business in NJ this week. A pleasant hike on a closed off State forest rough track / trail and bit through open woods and I was there.. about 1.5miles.. W3/PW-065 Hickory Mountain West.

I found a good spot for the dipole that would allow me to deploy the 60m extensions in the woods and started to set-up. Just as I was preparing to send my spot a squall blasted through with lite rain, so it was on with a fleece and my waterproof... wow! it was chilly.

10mins later I called CQ on 40m and rich N4EX came in, and then out, and then back in again... I got him in the log... cold fingers and not much CW in the past few weeks... I'm glad he was able to decipher what I sent...

Two in the log on 40m and it was dead quiet.. I texted a few Hams around the N.E. no-one could hear me.. I moved to 60m



and could hear W2SE but he couldn't hear my 5w.. we moved to 80m same story. BTW.. I haven't yet made a daytime 80m contact while on SOTA... hope to do that one-day. I switched back to 40m.. a second really bad squall came through... much more wind and this time followed by thunder... I was trying to complete a QSO with W8LJG call-sign and between the wind and the lashing rain... couldn't make out his call enough to complete the QSO.... I moved to 20m and put another couple in the log... that's my 4.. wow.. two squalls, a soaking and 90mins!

By the time I reached by car and it was a beautiful Fall'ish day again, with blue skies and puffy clouds...

Yup... conditions are tough

Richard /// N2GBR



*Ed: Sometimes SOTA Activations just don't go right. Without a doubt, Richard had a bad day on 08SEP17. Encountering weather like that is not good at all. I had my bad SOTA day on 10SEP17, just two days later. I drove four hours to get to where I could park near a Summit that was North of Coudersport, PA. I spent about 45 minutes going through the woods to get into the 'Activation Zone'; and about 30 minutes getting my antenna and station all setup. It wasn't until then that I found out that we were in a HF Radio Blackout caused by a severe Solar Flare that had hit earlier that morning. There was not a signal on any band (I could not even hear any JT Mode signals anywhere). Everyone on the SOTA spotting network (that I had just then began to monitor on my cell phone) had been saying for some time that it was completely dead for them also. And they were all around the country. I kept calling and tuning around for the next 2 hours - I already had a lot of time and effort invested - but there was not any hint of any recovery on any HF band. Then I completely lost my cell phone signal. That was finally it for me - things had just gone from bad to worse. I reluctantly packed everything up, walked out, and headed for home. Three hours into my four hour drive back home, reports on the SOTA spotting network started to say the bands were starting to recover. Bummer!!! (So, how did I handle this? I did this one all over again two days later, on 12SEP17. That day I was able to make 15 contacts during the 2.5 hours that I was operating from there. Pretty poor performance, but more than enough contacts to have a successful Activation and get 8 points closer to the 1000 needed to become a Mountain Goat ).*

## Modeling with LT SPICE

de Joe - N3TTE

When I did the Elmer Night on building from a schematic on Oct 24, modeling the circuit before building came up. And it was a very good question! I suppose that I had enough confidence in the circuit to go ahead and build it instead of modeling it in software, but the question got my curiosity going.

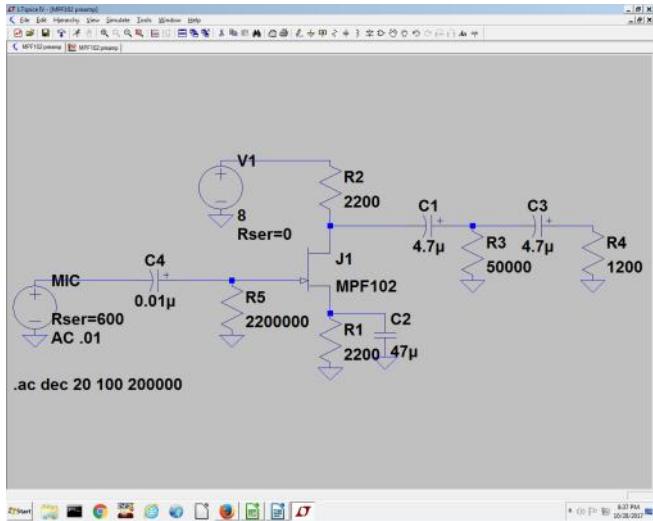
One minor thing I am disappointed in with the circuit is that with the Heil headset, it has just enough gain. There really isn't any margin. So I wondered if changing a resistor value or two would improve the circuit.

Now, I have a free version of SPICE – LT Spice IV (4.21i) – on my hamstation PC, so I went ahead and modeled the amplifier to see if I could get more gain out of it.

The project turned out to be quite “interesting”, so I thought it would be fun to share my experiences doing the model.

First, the version of LT Spice I have did not have a model of the MPF102 JFET on it. I went online and stumbled on a listing of LT Spice FET parameters that had the MPF102. So I found the text file that contained JFET parameters and cut and pasted the info in it. (After making a safety copy of the original file.)

But when I tried to save the file, I got blocked. So I saved the file in another directory (folder) and found out that the directory used by LT Spice for configuration wasn't “shared”. I shared it and was able to replace the file with my edited one.. Here is the SPICE Model of my Amplifier:



I went ahead and built the circuit and set up a simulation, but instead of gain, I got attenuation. In other words, negative dB's instead of positive dB's. After scratching my head (and other parts) for about an hour, I hit upon entering the resistor values as absolute values. In other words “2200” ohms instead of “2.2k” ohms. And by gosh, by golly, I got positive dB's.

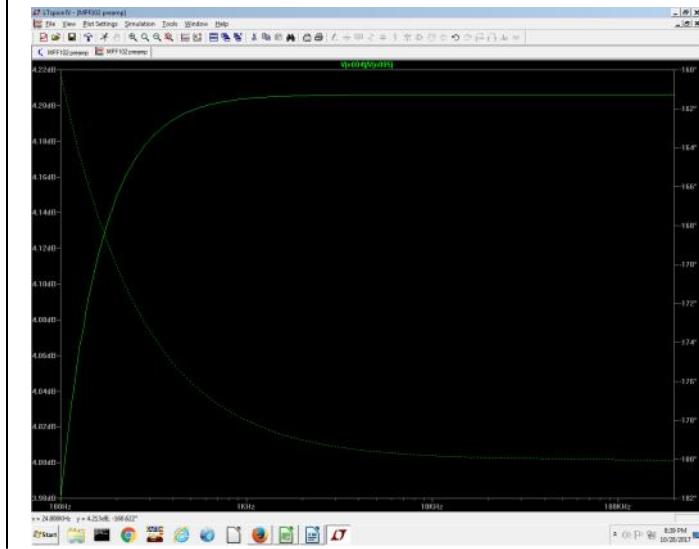
The voltage gain was given in dB, but when I converted it, I got a gain between 1.5 and 1.6, which agreed with what I observed in the actual circuit.

Earlier I found an article on the Internet – [www.rason.org/Projects/jfetamp/jfetamp.htm](http://www.rason.org/Projects/jfetamp/jfetamp.htm) – on designing preamps using an MPF102 and the critical resistors are R1 & R2 in the circuit I built.

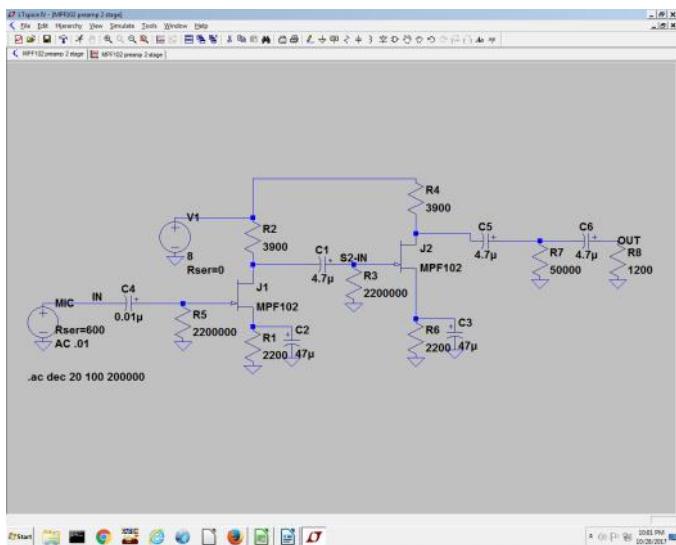
By trying different standard values of resistors for R1 & R2, the best improvement I got was just an 18% improvement in gain changing R1 to 3.9k, while leaving R2 at 2.2k.

It turns out that the gain is limited by the load resistor – R4. No surprise! By changing the load to 10M or essentially infinity, I get a gain of 4.46. (I observed an unloaded gain ~5 in the bench test.)

Here is the SPICE Simulation Output:



For fun, I tried a two stage pre-amp and the overall gain went from <2 to just over 15. Here is the SPICE Model for the two stage amplifier with a gain of 15 :



While I have the parts, a gain of 15 is overkill.

The next evening, I got curious about how substituting a different JFET for the MPF104 would affect the gain.

I looked at the MPG104 parameters and remembered that the Beta parameter has to do with gain, so I tried some of the JFET models in the LTSpice library and found that a 2N5434 would give me a gain of 6.7 and a 2N4393 would give me a gain of 4. (vs a gain of 1.5 to 1.6 )

So my conclusion is that I can improve the design by substituting the FET. But it would require some work with finding and installing a LT Spice model of the JFET to verify.

Joe - N3TTE

## 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 Yahoo 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

I'm worried about crime, so I asked a friend from Texas what I needed to defend my home. He said a 9mm, a couple clips, and a box of shells. I put it together pretty quickly. Still not sure how it's suppose to work, though...



## Experiencing New Digital Modes

de Jody - K3JZD

The Russian Digital Radio Club (RDRC) is quite a promoter of the lesser used digital modes. Since I participated in their 01-10 Activity Days back in 2016, they have kept me informed by email of each of their upcoming events. So, I found myself being invited to celebrate their national holiday [the Day of People's Unity](#) by participating in their **Activity Days «Planet DIGIRADIO - 2017»** event from 12:00 UTC November, 3rd until 23:59 UTC November, 4<sup>th</sup>. <http://www.rdrclub.ru/>

The RDRC targeted three particular modes for this year's event: **ROS**, **SIM31**, and **T10**. I have never used any of these three modes, so it seemed like a challenge. Half of the "fun" of any digital mode is finding the right software for the digital mode and getting it configured to run on your system. I soon found out that neither fldigi nor digipan would do any of these particular modes, (MultiPSK might do one or more of them, but every time I that I open up that program and try to figure it out I give up and close it back up again). So, off to Google I went.

I found out that **ROS** uses a custom GUI that was created by Jose Alberto Nieto Ros - EA5HVK. Jose calls ROS the "Weak Signal Radio Chat" mode. It utilizes user configurable macros and works a lot like fldigi in that you can pre-prepare your text that you are going to send out while receiving. You can start out with macro text and then intersperse typed in text in with the macro generated text. Unlike fldigi, it allows you to position the cursor in your pre-staged text using the mouse, backspace to remove text, and freely insert new text without it blowing up like fldigi has a habit of doing when you try doing that. So, it is optimized for conversational mode. There are designated frequencies to use for this mode. However, they are in the CW band (ie 7.046 and 7.048 in 40 meters) and are subject to CW interference. This Mode/GUI is a bit unique in that you do not look for a free space on the waterfall and then position yourself. There is a bandwidth window that is shown on the waterfall, but it is not movable. This mode behaves like spread spectrum communication where the software decides how much to offset each signal to improve the throughput. Once you accept that, this GUI is pretty in-

tuitive. Another truly unique feature of this GUI is that if you have an Internet connection, and you send out a CQ, that gets forwarded to a common spotting server which displays a message across the top of the GUI saying that you called CQ and on what frequency you are on. And it also reports whenever you are in a QSO with someone with a message there. So, you then see all of the activity of others on all of the bands being announced on the top of your screen. That definitely answers the "where is the action?" question for you. However, if the band you are on does not support communication to that area of the world at that time, it is a bit of teaser to know that some DX station is calling CQ on the frequency that you are on, but you cannot see/hear him. That Internet enabled feature also supports limited messaging capability designed to coordinate QSOs. I made one 20 watt 40 meter QSO into Europe using ROS. This seems like a mode that has the potential to make PSK31 and fldigi seem pretty old if this mode catches on.

<https://rosmodem.wordpress.com/>

I found out that **SIM31** uses a custom GUI that was created by a group consisting of: ON2TSF, ON4NB, ON7TV, EA5GVJ, and ON5DVO. SIM31 "Structured Integrated Message" is described as a new robust digimode specially designed for making reliable & confirmed QSOs under extreme conditions on all amateur bands. There are designated frequencies to use for this mode. However, they are in the CW band (ie 7.045 in 40 meters) and are subject to CW interference. This GUI uses selectable canned Macros, but it also has a selectable 'Chat' feature which allows free-form conversation. Like all new GUIs, this one takes some stumbling along while getting used to using it. I only made one 20 watt 40 meter QSO on this mode, and that was into Missouri. I did not find this mode to be real busy. This digital mode is not quite as robust as the other two. I tried working an Italian station on 40 meters but I was not able to complete a SIM31 QSO with him. He heard me initially, but he gave up on me. And his messages were often broken up in my decoding of his signal. I had just worked that same Ital-

ian station with no problem using T10 just an hour earlier. Of course band conditions might have changed in the last hour. But, this is a faster mode, and I suspect that higher speed contributes to it being less robust.

<http://www.sim.on2vhf.be/>

However, I found that **T10** uses the JTDX GUI that I already had installed and already had a lot of experience with. So, that saved me from looking and configuring. All I had to do was select this mode. The suggested T10 frequencies are at 2KHz above the suggested JT9 frequencies (ie 7.080, 14.080, etc). T10 is described as an improvement on JT9. Like JT65 and JT9, it is based on a one minute cycle (not a 15 second cycle like FT8). So, there was not really any learning curve for me with this new mode. I was able to make seven 20 watt 40 meter T10 QSOs into Europe during the late afternoon and early evening hours using a simple dipole antenna. It seems to be a pretty robust mode. But, like JT65, JT9, and FT8, T10 is not a conversational mode.

<http://www.qrz.lt/ly3bg/JTDX/jtdx.html>

On November 3rd I just used 40 meters as it was too late in the day for 30 meters or 20 meters. I made one contact on ROS, one on SIM31, and seven on T10, all using just 20 watts. On November 4th I tried using 30 meters and 20 meters with my 20 watts. While the ROS Internet messages showed me that there was a lot of European activity on both 30 and 20 meters, I did not copy or decode very much of it. I ended up just working one Belgium station on 20 meters using ROS. I called CQ several times on both 30 meters and 20 meters using SIM31. But there was not any activity at all observed there. I did not find any T10 activity on 30 meters. But I use my 40 meter dipole for 30 meters so the SWR is quite high and it is not really very efficient. However, whenever I used T10 with my 3 element beam on 20 meters, I did find some limited activity on 20 meters and I made two European T10 contacts and an Alaskan contact. But this was really very limited activity with this T10 mode – I called CQ quite a lot and was getting spotted, but there were just these three takers. And 20 meters was wide open to Europe and the West Coast, as I saw that the JT65 and JT9 modes were very active. So I think it was just the minimal interest in using T10.

Based on my results from using these three modes, I have to conclude that the non-conversational Joe Taylor type of weak signal communication protocols manage to get the job done when other digital modes are not able to. Thus it is easy to see why they are getting most of the attention. Another reason might be because they are readily usable by anyone who can read call signs, no matter what language they speak.

I found it interesting to setup and learn these three new (to me) digital modes. I do not know if there is normally much activity to be found on these three lesser used modes, or if the activity that I saw was being driven by the this Russian event that focused on these three modes. I will have to try them again down the road to answer that question. I have noted that there seems to be more interest in utilizing all of the various digital modes in Europe than there is in the US. I am often one of the few US stations who submit logs for European digital events like this that focus on the lesser used modes.

As an aside, the plus side of doing events like this with lots of beathing room is that it allows me to write articles like this while doing the events and waiting for responses to my CQs !!!.

Jody - K3JZD

### Bayou Jumper Kt Update

de Jody - K3JZD

In the August 2017 issue, I described the WWII Paraset clone kit that I had built. Since then, I have installed a digital frequency counter module that another Bayou Jumper owner discovered on eBay. This provides an accurate digital readout of my receiver frequency.



## Chasing the Chatahoochee Choo Choo

de Joe — N3TTE

*Here is a little story I wrote for a model railroad organization I also belong to. After I wrote it, I realized that there is also a ham radio and a Skyview connection.*

Back in the 1980's, I was working for Westinghouse, programming computer simulations of the electrical portion of Westinghouse nuclear power plants.

My part consisted mainly of the substation, main generator, in-plant distribution, and especially the emergency diesel generators. I particularly enjoyed simulating the diesels because it gave me an excuse to read railroad and model railroad magazines under the guise of 'research'.

You see, the diesel engines in the emergency diesel generators were identical, or nearly identical to the diesel engines in railroad locomotives and I was able to cross reference into Alco, EMD, and even Fairbanks Morse locomotives. And truth be told, I a lot of information from Kalmbach publications (Trains and "The Diesel from D to L") and even the NMRA Bulletin ended up in my simulations.

One of the plants we did a lot of work for was the Farley Nuclear Plant in Dothan AL, and I made several trips to their training center to fix problems that came up and install upgrades. Now the training center worked from 7 am until 3:30 pm, and at 3:30 pm, everybody VACATED! It was almost like they were practicing an emergency evacuation on a daily basis. And after 3:30 I really couldn't do much work without the customer there to sign off on the changes. One day in the late spring, I decided that I really, really didn't want to spend the afternoon and evening in the "thriving metropolis" of Dothan, having already gained significant familiarity with the eateries and entertainment available, so I decided to check out the Chatahoochee Industrial Railroad, which was a relatively easy drive from the plant.

When I got to the Chatahoochee Industrial Railroad, they were very friendly to this yankee railfan. In those simpler times all you had to do was sign a release form and promise not to get hurt on the property. They even loaned me a hard hat! I walked around the yard, took some pictures, and found out that a train was leaving for the interchange at Saffold GA. So, having stocked up on AAA maps before I left, I drove down along the railroad to Saffold, stopping for the occasional picture. At Saffold, I watched the crew exchange cars, and even participated by driving the brakeman to and from the yard office to exchange paperwork.

Then on the way back, I followed the train, again taking some pictures, until I ran out of either road or light; I forgot.

Back in Pittsburgh, we had to fill out weekly progress reports, so on my report for that week, I duly noted that: "During my limited free time in Dothan AL, I endeavored to observe diesel engines under varying conditions of loading in order to improve my modeling (computer simulations) in this area." When I got the report back, there was a note from the division general manager commending me on the productive use of my time. My immediate manager, who was in on the gag, thought that was a hoot.

*Now for the Skyview connection. My immediate manager was Bill Alliston, W3ICB, president of Skyview for 1980. Bill Alliston was an all around 'good guy', who introduced me to hamfests and Skyview. And although it would be some years before I got my license, he helped rekindle my interest I had in ham radio.*

Joe Birsa - N3TTE

## QRP CONTESTING WITH ATTITUDE (AND PURPOSE)

de Mark NK8Q

I enjoy operating QRP in contests that have a QRP category, such as any of the QRPARCI's contests, ARRL's November Sweepstakes, the ARRL and CQ 160m contests (yes, really, QRP contesting on 160m!) and the ARRL 10m Contest. I especially like operating in contests that give extra points for being QRP, such as FYBO (more of an operating even than a contest), Stew Perry Top Band DX Challenge (extra points are awarded, rightfully so, to those on the Rx end of a QRP QSO) and my favorite of all, the PA QSO Party which awards QRPers a 2x multiplier for their efforts.

What I usually do for the PA QSO Party is operate from a portable location which I usually select from a list of "rare" counties that have low record scores that "need" to be broken. My goals are typically:

- 1 - Have fun
- 2 - Win the county for the year.
- 3 - Set a new County record.
- 4 - Make sure that nobody considered the county that I operated from to be considered "rare" for that year.
- 5 - Enjoy working many old friends in the event (I've been doing this for over 15 years from PA, but owe the Michigan QSO Party the honor of getting my feet wet back in the mid-80s!)
- 6 - Did I mention having fun?

I usually accomplish those goals. Sometimes I miss #3 but I do hold the records for Cameron, Clinton and Somerset counties as well as having previously held the record in Mifflin (it has since been beaten).

The secret, I find, to being successful is the 2x Multiplier for QRP. This essentially means that I'm betting that I can make more than half of the number of QSOs as anyone else had previously done when running QRO and at the same time have the same number of multipliers. This is why going to a rare county with a low record score has been fairly successful for me. Finding a location that is remote means it is usually RF quiet and then the challenge becomes how to best set up antennas.

This year, though, we set our sights a bit higher. We chose a not particularly rare county, Centre County, which is where we live. Evan, N3TWM, wanted to do so because he was getting married the weekend before and knew he didn't have a lot of time for preparation for the PA QSO Party. He offered his in-law's hunting property located just outside of Snowshoe, PA, a 400+ acre property with no power lines within 1 mile. The "cabin" on the property was more like a house with plenty of room to set up to operate. I always wanted to put together a QRP Super-Team, so I reached out to several others who I wanted to have join us. We eventually got Goody, K3NG to accept the invitation, whom I knew was a ringer for our team! Goody almost always gets 1st Place QRP in the PA QSO Party with me being a close second place (once I got 1st place, but I think only because Goody concentrated more on a clean sweep that year).



### Mark - NK8Q

Here were our goals for the 2017 PA QSO Party from Centre County:

- 1 - Have fun
- 2 - Win the county for the year.
- 3 - Set a new All-Time Portable Multi-Op record (current record was set in 2015 and was about 245k points)
- 4 - And the really big challenge, setting a new Centre County Multi-Op record (which was set 20 years ago by NW3Z from the K3CR super-contest site run by Professor Jim Breakall, WA3FET, of Penn State University, a score of just shy of 372k!)
- 5 - A clean sweep of all 67 counties of PA
- 6 - Did I mention having fun?

Okay, so I was pretty confident most of the goals except for maybe #4 which seemed daunting to me and possibly #5 because I know that there are often one or two counties that I miss, usually the ones that I'm operating from!

So, with my experience of previous events I set a plan of what we would need to achieve our goals, all of our goals. I set up a spreadsheet to evaluate various scoring scenarios and determined that even at a low sunspot cycle we may have a good chance at achieving a score of over 372k to break the Centre County Multi-Op record if we were able to do the following:

- 1 - Each station needed to operate about 300 QSOs (300 on SSB, and 600 QSOs on CW between two stations)
- 2 - Check off at least 66 of the PA Counties for multipliers, my typical number of counties (a clean sweep would be icing on the cake!)
- 3 - Work around 55 ARRL/CRRL sections (the number that I typically get when I'm Single Op, so we should be able to do so running Multi-Multi), although more would be better

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

4 - Work that one DX multiplier (OM2VL has an amazing station that he operates from for the past several years, so the DX mult was almost a "gimme")

5 - Of course the 2x multiplier for QRP

6 - This year there were going to be multiple bonus stations worth 200 points each and I estimated minimum of 30 QSOs with bonus stations (6000 extra points).

If the radio propagation wasn't blacked out by a solar or geomagnetic storm, there seemed to be a good possibility of achieving goal #4! This aspect of course falls into the luck category, and I know that there are two kinds of luck!



**Evan - N3TWM**

I knew I had a top-notch team put together, so what equipment did we need to accomplish this? Each of us owned an Elecraft KX3 with roofing filters, so those were the radios we were going to use. Evan, even though he was saving for the wedding expenses, purchased his roofing filter for the KX3 just in time! I had made some coaxial stub filters the year before but since then had assembled the 5B4AGN 6-band BPF which I figured would help minimize interference between stations. I left it up to the other two guys to figure out how else to do sufficient filtering, even at QRP levels, to minimize co-station interference. I had several antennas to choose from for doing single op, but not enough to provide enough antennas for a multi-multi station.

Luckily, Goody had recently moved so his antennas were all easily available. I also had recently acquired a 30' aluminum crank-up tilt-over tower mounted on a trailer and a 3 element yagi that I thought would be useful for those left-coast multipliers on 20m! I never used a full-sized 160m antenna as there were only a couple of hours or so of activity on 160m late on Saturday night when 40 and 80m got very slow, but this year I knew we would need to dedicate a full-sized 160m antenna to maximize our number of QSOs. Further, to minimize co-station interference I wanted to have the antennas as far apart from each other as possible, and so to minimize our feedline losses of our precious QRP signals I borrowed two 250' lengths and a

95' length of 1/2" hard line from my (QRO ONLY) friend Eric, N3EB. He told me that I could use them as long as we would operate QRO, and I told him that as long as the amplifiers worked we would not be QRP, just some verbal sparring that we enjoy. It also turned out that about a week or so before the event we also got a fourth participant who is well known in the SOTA realm as a recent Mountain Goat, Richard, N2GBR (Great Britain Rules), who has become a good friend of mine over the past year. He brought along his Elecraft K3 and KX3.

Antennas that we actually installed were:

1. 80m CW EFHWA, 20' at the feed point and ~70' at the end of the wire (trees make wonderful supports, thanks to skillful use of a sling-shot and my bow-n-arrow)

2 -40m/20m/10m EFHWA, 20' at the feed point and ~50' at the end of the wire

3 -40m 1/2 wavelength center-fed flat-top dipole (balun at feed point) supported at about 70' with 100' of RG-213 and 250' of 1/2" hardline, supported of course at the feed point with Dacron rope due to the weight of the feed point and masonry twine at the wire ends.

4 -W5GI Mystery Antenna that I constructed to be light-weight for portable QRP using RG-174 and #26 Polystealth wire as well as 300 Ohm windowline, effectively a 3/2 wavelength 20m antenna with some gain but also loaded on 80m okay, fed via an LDG or SGC remote tuner

5 - 3 element triband yagi on the tower trailer, pointed westerly(ish) fed with 50' of RG-213 and 95' of 1/2" hardline

6 - Half wavelength 160m center-fed flat-top dipole at ~80' fed with 100' of RG-213 and 250' of 1/2" hardline.

The antenna farm almost sounds like a QRO antenna farm for portable operations, right? Surely that was a key to our results!



**Goody - K3NG**

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Okay, so I had good operators, good radios, some filtering, good antenna separation, decent antennas, low loss feedline and hopefully good propagation. We chose to use Evan's callsign, N3TWM, as we were operating from his in-law's property. So, how did we do?

After the first couple of hours I thought our QSO rate was okay, but Evan was nervous as he didn't think we were doing very well. I told him to relax and concentrate on the process, making QSOs. We could tell we were doing well when we broke our first 100k, then our second, before the contest took a break at 1 AM on Saturday night. Actually, by that point we had already broken the All-Time Portable Multi-Op record, and we still had another 9 hours of contesting left to continue to crank up our score. Evan was feeling better about our score, but still didn't think that we would have a chance at the big record as our county list still had a lot of holes in it. Trust me, I've been there before, and knew that we had to stay focused throughout the day on Sunday. By mid-afternoon on Sunday we had surpassed the Centre County Multi-Op record of 372k points. As far as I was concerned everything else for the next three hours was just gravy, but we still hadn't gotten all 67 counties. I wanted to push for as high of a margin above the previous record as possible because I didn't want somebody from the old record saying that we won because of the plethora of bonus station QSOs while 20 years ago it was standard to only have the one bonus station. By the time the contest was over we were at 422k points not counting the bonus stations. This was 918 QSOs and 136 total multipliers, but we missed two of the counties in PA. Every one of our members of the team contributed very well. I'm sure that our 63 QSOs (double my original estimate, all made by Goody) on 160m helped a lot. We had a total of 583 QSOs on CW, split about equally between myself and Goody, and 335 QSOs on SSB, so my estimates of 300 per station were about right, but only because we included a 4th station to help out with that.



**Richard - N2GBR**

Evan was sad about missing Armstrong and Cameron Counties, but it was a valuable lesson to him, whether he learned it or not, that concentrating on a top score may or may not result in a clean sweep while concentrating on a clean sweep could result in many missed QSOs and a lower score, possibly a score that doesn't win or achieve the goals. It turns out that we had a good margin over the previous record not counting the bonus stations, so I was happy about that! With the 60+ QSOs with bonus stations we ended up with somewhere around 435k points. So, that should set the All-Time Portable Multi-Op record a bit higher for somebody else to try to reach! Also, comparing our score with that of Bud Trench, AA3B, who consistently wins the PA QSO Party with the highest score almost every year and is a SO2R contest extraordinaire, who had somewhere around 361k points. Umm, sorry Bud, but QRP RULES! Oh, the next closest score to ours was from one of the Bonus Stations, whose scores don't officially count, but was Multi-Op High Power and they got 363k points.

So, my rule of thumb that QRP should be able to get more than half of the QSOs as a QRO station (in the state QSO party, probably not true for DX contests) and be able to have a higher score still seems to work, either single op or multi-op.

Mark, NK8Q



## Hy-Gain Rotator Controller Lamp

de Jody — K3JZD

The Hy-Gain rotator control boxes use incandescent lamps to light up the direction indication meter. They all eventually burn out. Mine lasted 5 years with moderate use. I turn it Off when not in use. But when the bulb burns out, you lose that reminder to turn it Off. As I generally do, I looked around for a solution rather than just diving in.

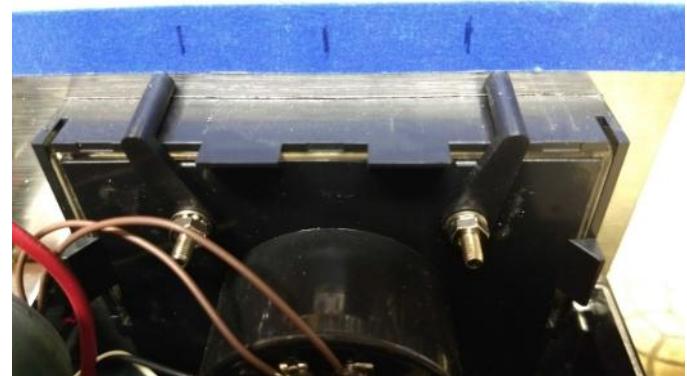
A Google search led me to a kit designed for the job:

<https://www.hamsupply.com/rotator-illuminator/>

The picture in the ham supply ad did not look exactly like my controller – but it was close. My controller is pretty buried, so I did not want to take it out twice to see if this warning in the Ham Supply ad applied: *Please note that the Rotator Illuminator is designed to work with meters that have clear plastic on top and a single bulb mounted above the meter . . . . Control boxes made in the last year or two have black plastic all around and with two bulbs set into the meter and are unfortunately not suitable for the Rotator Illuminator.* So I just went ahead and ordered this kit.

Whenever I dug out my controller and went to install this light kit, it turned out that I had the newer 'not suitable' kind. Well, not wanting to remain in the dark, I made it 'suitable'. Took a little more work, but not that much more. The bulbs embedded inside this meter are fed with the same 28VAC as the external bulb in the earlier model was, so it became a physical problem. Turns out that my meter still has clear plastic at the top – it is just the meter mounting frame that is in the way.

Here, as a FYI to anyone else who has this controller model and would like to add these lifetime LED lights, is the approach that I took :



1.— Blue tape on front panel shows where holes for the LEDs are needed in the black frame that is above the meter – they will just fit between the meter mounting arms if the arms are spread as shown here.



2.— Remove the top meter mounting arms and the meter will drop right out to the bottom.



3.— Meter frame has been popped out, three holes have been drilled in it, the frame has been popped back in, and the meter has been put back up into place.



4.—Illuminator PC board with the three LEDs just loosely set in place. The kit comes with standoffs that are under the screws that you can see at the left and right sides so the PC board clears the meter mounting arms. The LEDs drop down into the holes that were drilled in the meter frame and rest against the clear top of the meter. While sitting there, with it just like you want it to be, solder the LEDs to the PC board to get them all at the right depth.



5.—View showing where the LEDs ended up being positioned with respect to the PC board after soldering them.



6.—Illuminator board populated with the rest of the kit components, in place, and wired to the 28VAC line. I just connected right onto the internal lamp connections on the back of the meter.



The finished result. Using the Illuminator board with the LEDs set down low like that, and neither resistor on the PC board jumpered out, it provides a light intensity that is just fine with me (the picture makes it look a little brighter - which is a camera issue). If one wanted less intensity, one could just raise the LEDs or add more resistance to the circuit on the PC board.

Now that I have this rotator controller buried back in its place in my cozy shack, I'm looking forward to not having to deal with this illumination problem again.

Jody – K3JZD

**Experiencing New Digital Modes —> FOLLOWUP**

de Jody - K3JZD

**Breaking News**

[[ — Did not want to reformat earlier pages to fit this in—so adding it here — ]]

Looks like I'm First Place in USA (as well as First Place in NA)

( Based on my submitting an acceptable log — How about that !!! )

**FINAL list of uploaded logs Activity Days «PLANET DIGIRADIO 2017»**

4K6N	LZ1QZ	R6AJ	RA4UDC	RV3UQ	UA6XES
9A7DD	ON2AD	R6DAI	RA9CUU	RV6F	UA9FDN
DE6SWR	PA3EAQ	R7FQ	RA9H	RV6HEO	UB1CCA
DK7OM	R1BBL	R7KRB	RA9HO	RW4LMR	UK8LCK
DL1MF	R1MA	R7LD	RD3ZQ	RW6APC	UN7DA
DL1RI	R1ZA	R7RAG	RG3R	RX1AB	UN8PC
DL4FCH	R2DGN	R7RIB	RJ7K	RX6ACJ	UN9LBZ
ES4RLH	R2ZR	RA0LAQ	RK3DSW	SO5WD	UR4MG
EU6AA	R3FO	RA0WHE	RK6FK	SP6EIY	UT2GA
EU6KA	R3IK	RA1WZ	RK9DR	UA0JGI	UT2SQ
F1ABL	R3LW	RA3E	RN3QQT	UA2FAK	YG5YUD
<b>K3JZD</b>	R3PJT	RA3PDG	RT6DI	UA3DLL	YL2IU
	R3ZC	RA3QH	RU4CQ	UA3GQ	YL3ID
	R4IQ	RA3RJH	RU4I	UA3IBD	YO4CVV
	R4OF	RA3TOS	RU6YJ	UA4HJ	YO5BYV



## Introducing the SRRP

de Cooky - WC3O

### Introducing the:

#### Skyview Repeater Revitalization Program!

Have you ever noticed just how quiet it is as you scan the local repeaters? Out there are thousands of ham repeaters all plugged into the wall. Cooling fans are running. Receivers are receiving. Repeater controllers are anxiously standing by. But there is quiet. Nothing but quiet. Why?

Recently a new Skyview member made a very valid comment about how folks don't get on the air and talk. Well, he's right! But my question is why? As we work to get new people licensed and they get on the air with their shiny new Tech license, they are often met with silence from the ham community. The very nervous voice cautiously calls out on a local repeater, only to hear ----- Nothing. That's not good. It's a great way to completely loose a perfectly good, new ham.

### Some background:

There was a time when FM repeaters were new. They quickly became a virtual meeting place. A great way to spend your drive time. A great way to enjoy your evenings. Most all the area repeaters had a group of folks that hung out on frequency. The repeaters had different personalities per the folks that hung there. I recall listening to MANY great conversations about lots of different subjects. Is was really nice.

Today is a new day. Things have changed. It's quiet now. But why? What really has changed?

- Yes, we now have cell phones. Big flip
- Yes, there is now the interwebs.

However:

- Do people still talk?
- Do people still drive back and forth to work?
- Do people still not have much important to do in the evenings?

Way back when cell phones were new I had a scanner that could receive 800 Mhz and I would listen to the calls. As I recall, most calls were people arguing, fight-

ing, belly-aching and moaning. It was actually depressing to listen to! I figure if I could still listen today things likely haven't changed much. Do you cringe every time your phone rings? Yes?

The internet has really done nothing but made ham radio better if you think about it! Look at the MANY aspects of ham radio that involve the internet. The internet the death of amateur radio? My foot!

Other repeater activity in current times:

- The Two Rivers club has a very active repeater (147.120 +600 131.8 pl)
- The Butler County ARC has a very active repeater (147.360 +600 131.8 pl)
- As always, the 146.730 (-600 131.8 pl) repeater has been consistently active
- There are some others too.

Often I listen to these repeaters and enjoy fine conversations. If I feel I have something to add, I'll hop in and partake. It's fun. If it wasn't fun I wouldn't do it.

So what makes these particular repeaters more active than others? Is it the repeater coverage footprint? Is it location? Is it that they have an appealing courtesy tone??? I'll tell you exactly what it is - It's the people! The people that get on make it fun and make it work. YOU can be those people.

The Butler folks have numerous nets on the 147.360 repeater, both in FM and C4FM. But one gathering they refer to as meeting up "poolside". Sit down, put your feet up, grab the mic, get together with your buddies on the radio and MOST important – Enjoy. I have heard many wonderful conversations poolside. It's a good thing.

If we were to start something, what should we call it? Poolside is taken. Hmm. Remember when you were a kid and folks around you would sit out on their porch and shoot the bull in the evenings? Earlier in this article I mentioned about a new member saying that nobody gets on the radio. That new ham was Bob, KC3JBS. Bob was brand new and wanted to make good use of his license, but there was no one to talk to. He spoke up about the issue

and that prompted me to write this article. When Bob had his first hand-held radio he would get into the 64 repeater all weak and scratchy from his back porch. At the time it was all he had. With all the Bobs in the club, we nicknamed him “Back Porch Bob”. (BTW since then JBS has put together a fine home station and has installed a radio in his car, all by himself-him)

So how's about the “Skyview Back Porch Chat”? Sounds relaxing to me?

This isn't about making anyone feel the NEED to get on the radio. This is about making you WANT to get on the radio. Sit down and chat with other folks that have so much in common with you. Amateur radio is a unique fraternity. You will not find a finer group of folks anywhere. We have such an incredibly large pool of knowledge between us.

Recommended subjects: Radio (Dah), weather, astronomy, travel, photography, firearms, construction, automotive (I hate cars), landscaping and the list goes on and on.

Recommended subjects to avoid: Feet scraping, toenail cutting, acute angina, where it hurts, when it hurts and what pills you're taking.

So .....

This is where YOU come in. We need recommendations. We need YOU to be a part of this to make it work and hopefully be a success. This is not meant to be something stressful. We need to make it fun, thus it will be self-successful. My vision is a nightly get-together. I hope not to hear crickets.

And you other non-Skyview folks out there. This is YOU TOO! No matter what club you belong to and/or what repeater you call home, this is a call to action. To quote Bob, KC3JBS: “GET ON THE AIR!”

The **SRRP** is made possible by grants from the Sohow-theheckyoudoin Foundation, the Sowhereyouatnow consortium, and people like you.

CU on the radio

Your Radio Officer – WC3O

You know you're a ham if your phone book only uses 4 pages —> A, K, N and W.



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

**Skyview Radio Society Roster as of 30NOV17**

NM3 A	WA3 HGW	N3 MLQ	K3 RWN
KC3 AY	KA3 HPM	K3 MRN	KA3 RXY
NA0 B	KC3 HRO	N3 MRU	KQ3 S
N3 BPB	KB3 HXP	KC3 MSB	KD4 SBJ
W3 BUW	KC3 IIO	KB3 NSH	KB3 SOU
KC3 CBQ	KC3 JBS	AJ3 O	K3 STL
W3 CDW	N3 JLR	WC3 O	KB3 SVJ
K3 CLT	KA3 JOU	WO3 O	K3 TAJ
KC3 CSH	N3 JPB	K3 OFX	N3 TIN
KC3 CSI	ND3 JR	K3 OGN	W3 TLN
KC3 DIA	KC3 JSF	KB3 OMB	N3 TTE
KC3 EJC	KB3 JXG	KB3 ORO	AG3 U
AB3 ER	KC3 JXO	KR3 P	W3 UI
KC3 EVT	K3 JZD	NK3 P	K3 VRU
KB3 EYY	K3 KDB	W3 PRL	W3 VYK
KC3 FEI	KC3 KEI	AE8 Q	N3 WAV
K3 FH	WA3 KFS	NU3 Q	N3 WKP
K3 FKI	KB3 KHR	WQ3 Q	N3 WMC
KC3 FWD	AC0 KK	NJ3 R	W3 WTJ
N2 GBR	W4 KV	KB3 RBV	W3 YJ
AB3 GY	WA3 LCY	N3 RHT	KB3 YJQ
KC3 GZW	AB3 LS	K3 RMB	N3 YNC
WD3 HAY	N2 MA	W3 RRK	W3 YNI
KB3 HGJ	K3 MJ	I2 RTF	K3 ZAU

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

**Snippets From Slashdot.org:**

In the era before the web, the forums on CompuServe were indispensable for everything from getting tech questions answered to chatting about movies. They still exist, albeit in diminished form. But Oath, which owns AOL, which owns what's left of CompuServe, is about to finally shut them down.

The payphone business in the US made \$286 Million in 2015. The payphone business in Canada made \$22 Million CDN in 2016. Companies in both countries that manage these payphones say that payphones are still a profitable business. (who would have thought?)

## 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.

## Welcome New Members !!

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

KC3JXO	Ryan Pribulski	Springdale
KC3KEI	Jeff Pribulski	Springdale
NM3A	Daniel Walter	Export
—	Janice Walter	Export

If you are a reader who is interested in becoming a 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.

## 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 . . . .

This is probably still available—On this NPR page you will find an audio interview with Greg Dober, N3MVF (former Skyview Treasurer) regarding his relaying health and welfare messages from Puerto Rico hurricane victims (tnx Cooky)

<http://tinyurl.com/y8zbpots>

Interested in Magnetic Loop Antennas? How about one that will work on 80 and 160 meters? Well, here is an article and a series of clear videos on how to build one;

<http://tinyurl.com/y8s5wg68>

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.

By the way, the sophisticated antenna switch that *has now been purchased* is the 'HamPlus' system that is featured on the cover of the latest DX Engineering catalog. Check out the details at DXEngineering.com.

Here you read s lot about what I and some others are interested in and doing in this hobby. How about writing something about what you are interested in and you are doing.

As usual, not much real club boilerplate or club news in here. The club web page, the club Facebook page, and the K3MJW Yahoo reflector all have the basic club info and 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 February 1, 2018  
Closing Date For Submissions : Jan 15, 2018

K3JZD AT ARRL DOT NET



A Three Band J-Pole

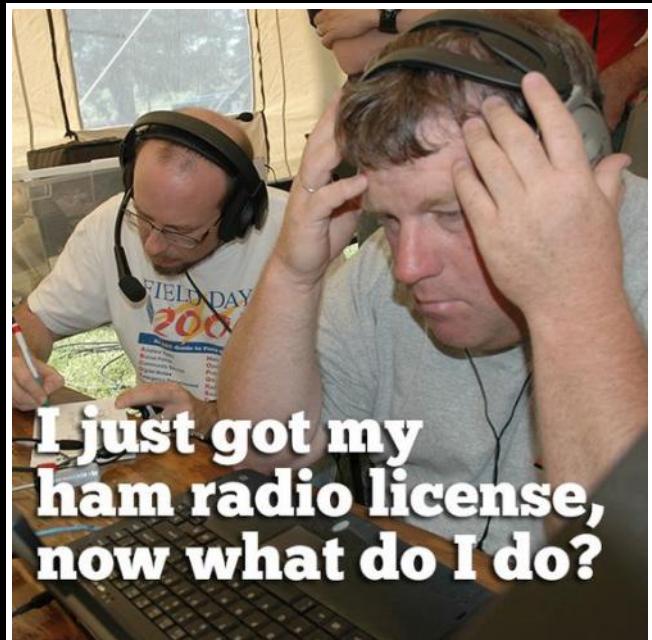


Q5er Editor & Publisher: Jody Nelis - K3JZD

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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>

See Yahoo Reflector for All Current News & Activities : <https://groups.yahoo.com/neo/groups/K3MJW>  
(You must be logged in with your free personal Yahoo Login ID to get into the Skyview Yahoo Reflector )  
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 ??