Mt. AIRY V.H.F. RADIO CLUB, INC.

CHEESE BITS

ARRL Affiliated Club

W3CCX
CLUB MEMORIAL CALL

Volume LXIV | May 2021 | Number 5

PREZ SEZ:

As George, KA3WXV said a year ago in the Prez Sez: "Here it's May and like most of you I'm tired of hearing Covid-19 related news": A year later we are still hearing that type of news although it looks like things are turning around and we can get back to normal in the near future.

The Good News I can report is the Packrats are going to Camelback this year for the June VHF QSO Party! Plans have been ongoing for the last year and we will once again be operating 50 MHz thru 10 GHz on the mountain. Set-up has been simplified because many of us have been sprouting gray & white hair recently and we have to start saving backs, knees, shoulders, hearts, and anything else that hurts. The technical committee has been improving the stations on all bands along with some tower placement changes to avoid raising issues with one another.

If you have never been to Camelback or have been away for a couple years, please come out for a great experience. Just the location and scenery atop a 2000 ft mountain is worth the trip alone. Operation from that elevation without compromised antennas opens up a whole new world that you might not experience from home. You are welcome and encouraged to come from Friday the 11th thru Monday the 14th, Stay a day or two, or just stop by for a few hours to relieve some of the operators.

If you can't make it up, please take some time to contact **your** club station**, W3 Charlie, Charlie Xray**. In addition if you have more time, get in on the fun by staying on at home for a few hours so we can increase our combined score in the ARRL Club Competition Category. You'll have some fun no matter what level you plan to participate in for the club.

In other news, the Microwave Update combined organizers are considering having a conference sometime this year. Actual month, dates and times have not been determined yet. Look for updates on this always fun and rewarding event as we get them.

As far as meetings go, the Board of Directors are looking forward to in-person meetings with a goal of being back at the Ben Wilson Senior Center for the September general meeting barring any new complications. What a **fun night that will be**, just to get together again in our traditional way. This month's meeting on Webex will be presented by Packrat Chris, K2QFA. The presentation will be on Making RF Test Measurements.

You may have heard on our Monday Night Nets that Dave, K1WHS has been running a 222 MHz Activity Night every Tuesday Night at 7:30 PM. Should the Pack Rats give this a try and establish a 432 MHz Activity Night on Wednesday's? Let me know if you are interested in running it or maybe even alternating weeks with one or more Packrats. We would like to also establish a Microwave activity night possibly

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PACKRAT BEACONS - W3CCX/B
Located at FN21be except 2304 which is at FN20dh
50.080 144.300 222.062 432.290 903.072 903.3 1296.264 2304.3 3456.200 5760.3 10,368.3 MHz (red = temporarily off the air see https://www.packratvhf.com/index.php/on-air for details)

MONDAY / TUESDAY NIGHT NETS
VHF/UHF Monday:

TIME	FREQUENCY	NET CONTROL
7:00 PM	224.58R MHz	WR3P FN20kb Ralph
7:30 PM	50.150 MHz	N3RG FM29ki Ray
8:00 PM	144.150 MHz	K3GNC FN20ja Jerome
8:30 PM	222.125 MHz	KB1JEY FN20je Michael
9:00 PM	432.110 MHz	WB2RVX FM29mt Mike

Microwave Tuesday:
7:30 Coordinate QSO's on 144.260 for all Microwave bands you'd like to work. Also setup Q's at w4dex.com/uhfqso or **Packrat Chat Page**
W3SZ.COM
Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

using a liason frequency on 2 meters to coordinate contacts. Does 144.160 sound familiar?

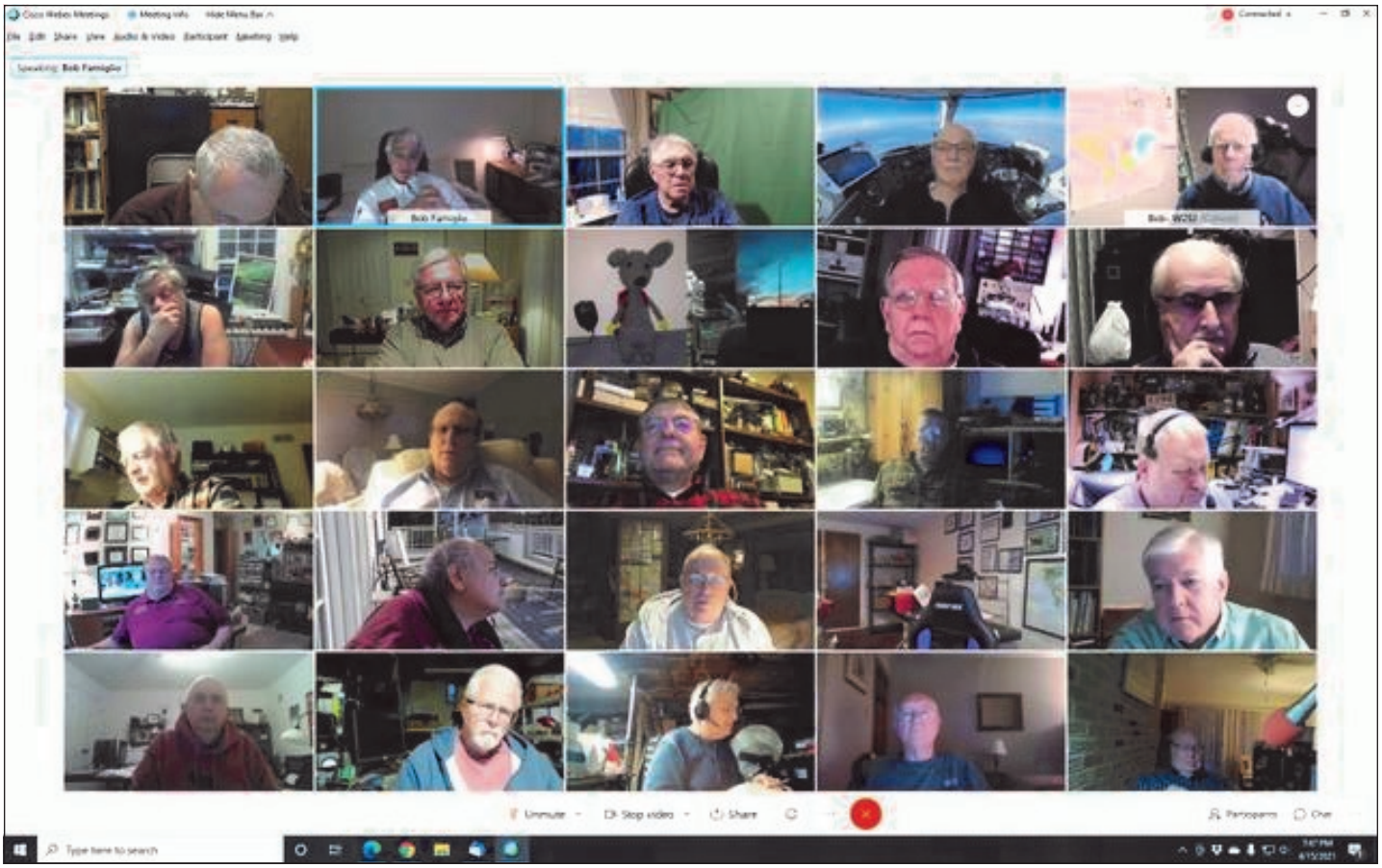
Many of you have mentioned that there are too many assistance methods available and that we should standardize on one that everyone can get on so the shack does not need multiple monitors. One such tool would be the Packrats Slack chat page. It can be put on your desktop or even on your smartphone be it Apple or Android. That way we could have one place to go to connect and work one another during contests.

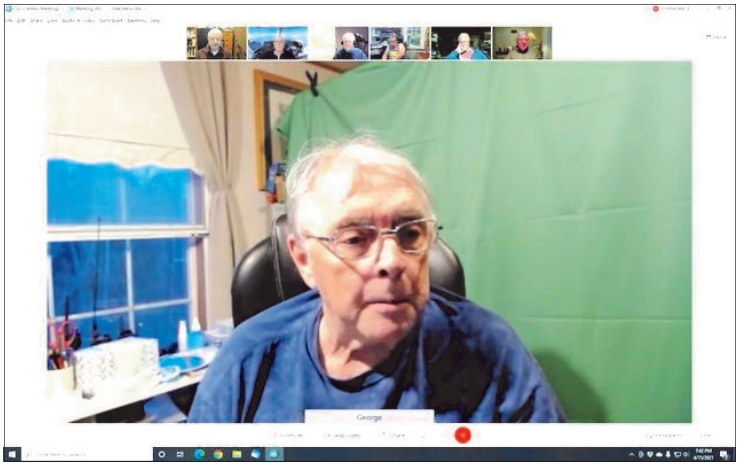
We have a great club, and super members who love to operate, help one another out with equipment or antenna issues, and continue to carry out the ideals and traditions the original founders put forth. **It's What Packrats Do!** Please let me know if you have an idea to make the Packrat experience an even more rewarding and fun time for all members.

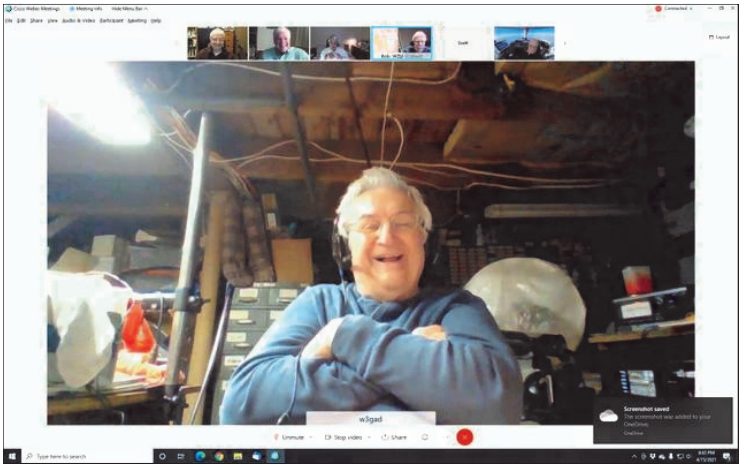
Meanwhile, finish a project on the bench, keep one ear "listening for the weak ones", and the other on the "Magic Band"!

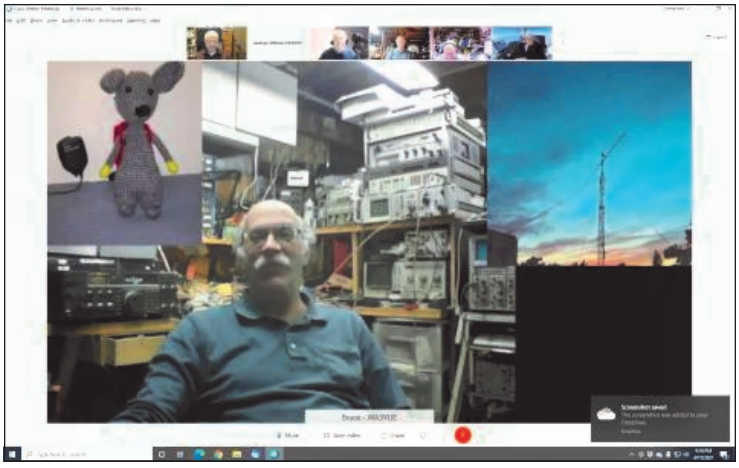
Vy 73,
Bob W2SJ

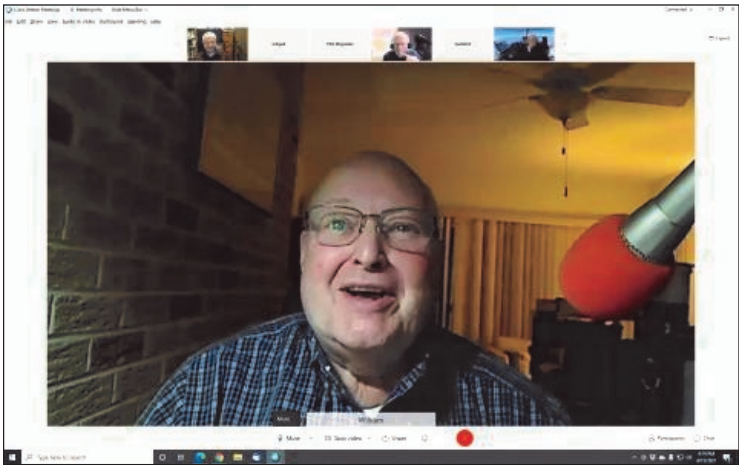
APRIL (WEBEX) MEETING PICTURES

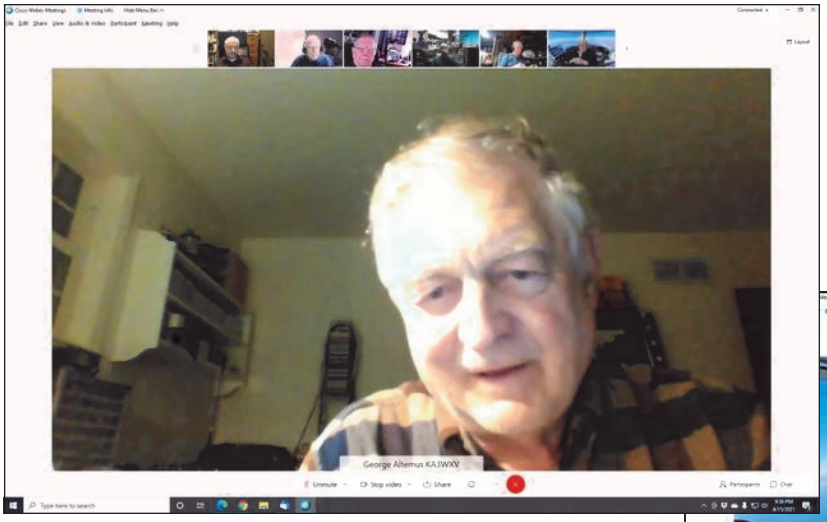











George Altemus KA1WXV


AI4NC Tom

KOBAK ROVE OF NEW YORK CITY PARKS (ON HF)

With my TV van spending more time with mechanics than with me so far this year I scrambled to get on the air with my little Subaru WRX. I previously wrote about VHF roving in the WRX in the June contest and recent 144 sprint, but I never had HF capability in the WRX.

I had won a well-used Hustler mobile antenna system about 3 years ago at a ham club raffle but had no use for it since my TV van used a screwdriver antenna. It has been sitting in a storage unit since, annoyingly taking up space because of its awkward shape and relative fragility. With my desire to get on the air cheaply and quickly, that Hustler suddenly became the center of my new HF capability. Using the advice of an Ontario ham who has a good signal using a Hustler mounted on a triple magnetic mount on the roof of his small sedan, I bought a **Tram** mount and tuned the three bands on the Hustler. [This antenna system uses a 54" rigid mast, then three "resonators" (enclosed coils) each with an adjustable whip.] I already had my backpack IC-7100 radio that I've also used for VHF grid activations. My newish laptop computer, a set of batteries, and a folding step stool to help access the car roof completed my portable HF station without having to buy anything new besides the magnetic mount.

After a few field tests at local POTA parks, I used this station to make hundreds of contacts during a POTA event, enlisting several activators to cover every POTA park in Delaware on a single day. After that I knew I had a good system that can survive the quick set-ups and tear-downs required in a fast park activation rove.

Continuing my quest to earn the POTA award for activating 400 unique parks total, I activated 12 new-to-me parks on Long Island and Staten Island within New York City on April 20. Although I usually activate the five boroughs / counties of NYC during the NY QSO Party in October, most of these sites were added to POTA recently so I couldn't take them into account during my annual Party rove.

My rove plan covered 12 parks, but I didn't expect to do them all given the unpredictability of city traffic, especially involving 6 bridge crossings that are potential traffic choke points. Getting them all done was a nice surprise, and a significant money saver in not having to go back to the area to pick up missed parks. While being a significant distance from home is one factor (the first park is 120 miles away), a unique aspect in NYC activations is the breathtaking cost of bridge and tunnel tolls for those with out-of-state EZPass transponders. Six tolled NYC bridge crossings were required in this rove. Including another non-NYC bridge and the NJ and PA turnpikes, tolls alone cost $79.

Getting fully vaccinated was a self-imposed requirement before visiting New York again, but I also wanted to get this rove done soon before warmer weather created more-crowded conditions in these parks. So, the timing of this trip was strongly tied to being more than two weeks after my last Covid vaccine. At my first park, I quickly noticed that many people were wearing masks outside, so I did too. On the other hand,

K0BAK cont'd...

I didn't know what the rules were for restaurants and was glad that a diner was seating people indoors for my end-of-rove decompression meal.

Band conditions were not good and were volatile. Other activators commented similarly. 40m hardly worked to normally-reliable North Carolina. 20m, to the extent it worked at all, was quite short; I'll bet some park chasers who might have made a contact didn't try because they assumed they were too close for 20. I was grateful to all chasers who tried to contact me since it was difficult in some cases even to make the minimum 10 QSOs, which is not a problem I've faced much. I am especially grateful for a handful of chasers who followed me around to most of the parks; without you all, I would have had a disastrous trip.

The first four parks around Jamaica Bay in Brooklyn and Queens were lined up for easy access from divided roads so they would all be on the travel side. Having to double back to the wrong side of a city highway can add significant time to a rove. Crossing over Jamaica Bay to the Rockaway Peninsula, two more sites were on the other side of toll bridges. The first at Fort Tilden was straightforward though windy. However, driving to the second one at the tip of Breezy Point I encountered a surprise security gate into what I later learned was Breezy Point Cooperative, whose property owners must be nominated by three others and approved by their board. Yikes. Luckily, I knew about the fishing parking lot on the Gateway Rec Area land and was allowed to drive to that tiny lot. You are supposed to have a National Park Service (NPS) fishing permit to park at that lot, though no one challenged me.

With that last Long Island park on my rove plan activated, I was thrilled I finished all six, and headed north over the bay then west to cross back over the Verrazzano Bridge to Staten Island parks. Fort Wadsworth is at the foot of the bridge, and I was glad that the guard houses I saw on Street View were not in use since my equipment with all the red and black wires look mighty suspicious at a shared military site. I picked a parking lot that was a poor choice for RF; it was somewhat in a hole with a wooded hill immediately to the west, and the huge bridge footing to the north. As I was setting up, an NPS ranger drove up. After answering what I was doing, she was friendly and we talked about what ham radio can do.

The next two sites were straightforward with large lots albeit still somewhat busy. I would imagine these would be much more crowded in warmer weather on the weekends. The fourth Staten Island site is a wildlife area with a small and limited parking area. I was lucky to find just one parking spot open when I arrived because there are no other places to park on property that I could find while planning. A State Forest with the same name was close by, and a small trail lot was at the end of a road through a school complex. Passing another guard house with no guards, I was able to park among thorns and broken paving blocks to just barely make 10 contacts. I picked two possible locations for the last park and headed for the closer and more open "Interpretive Center" via a circuitous route. After I started to set up at 4:40pm, a pleasant young lady came out of the building to tell me they lock the gates at 5pm but I could setup just outside the gates. Of course I couldn't do that until the gates were closed, so I continued setting up and hoped I could make 10 contacts before closing time. With the help of chasers who followed me around all day and slightly better propagation, I made my 10th contact at 4:56 and tore down in record time.

After a long decompression dinner at a fancy diner, and some wrap-up work on my logging laptop, I got on the road for the two-hour trip home.

Spring Sprint Reports

222 MHZ

From K1DY
Well, I had a music gig in the evening so couldn't get on until close to 10PM. My antenna is still stuck SW but I had new QRO and hoped that might make a difference in "getting noticed". It did. Ended up working 9 stations in 6 grids. 7 on SSB, one on CW and one on FT8. The FT8 QSO was with N2NT in FN20 and Andy was so strong we could EASILY have made it on CW, maybe even SSB! Conditions, by the time I got on, seemed really flat. My normal easy FN31 q's (K1TEO and WZ1V) were a bit of a struggle.. Still, all in all, a fun time.. Total: QSOs = 9 Mults = 6 Total Score = 54

From WA3NUF
More challenging contest than the 2M sprint due to the high level of QSB that persisted all evening. Good participation and lots of fun.

From K1TEO
Condx didn't seem very good this time. Many stations normally easy to work were harder than usual to complete with or not worked at all. I did hear AA4ZZ on FT8 a few times for the furthest station heard. NG4C was in many consecutive sequences on FT8 but not hearing me for some reason. I ran into a problem early on as my TS2000 with xvtr was tripping the overdrive protection on my Beko amp even at minimal drive. After a while I hooked up my FT736R with a manual switch to try that as the driver. That worked fine with the amp, indicating the issue is likely the brief xmit spike on the TS2000 causing the amp to trip. But my ARR preamp I use with the 736R was not working and that rig is deaf without a preamp. How deaf? About 9 PM when I was frustrated with not working much, I started using the manual switch to rx on the xvvtr/ TS2000 while using the 736R on xmit. I could easily do an A/B comparison and found that stations that were Q5 on the xvtr were often inaudible on the preamp-less 736R. So if you called and I didn't respond the first half of the contest that may be why. Anyway, while it was frustrating it was still fun. 222 is always a great band and fun to get on. Tnx for the Q's and now onward to 432!

From KR1ST
Running low power makes it hard to get people's attention from this location. Folks hardly ever (understandably) turn their beams my way. This is the only band I still need to get a 500W-kW SSPA for. Perhaps more aluminum as well, but I hear better than people can hear me. Just like for the 2m Sprint, I did not use any internet assistance. That's probably not the best strategy if you want to score big, but sometimes I prefer to use the radio to make contacts. :) There were some brief tropo openings and there was also a fair amount of aircraft scatter. Working FT8 was a challenge because of multipath reflections. Most signals looked just like smudges on the waterfall and it was hard to get decodes even when signals were pretty strong. I actually worked most stations on FT8 while not pointed at them. I worked W8ZN while my antenna was aimed 65 degrees away from him. Anyway, it was a lot of fun and I'm glad I was able to double last year's number of QSO's, and I worked 5 more grids. Thanks for all the Q's!

From WA3DRC
First time I did not work my own grid square!

From K3MD
Final HV blew

From W9KXI
Great fun tonight. Looking forward to next week. Thanks to the sponsors and to the folks that came out.

From N2NT (N2NC)
Best DX AA4ZZ EM96

From K1RZ
Good sprint tonight. Good activity. But there was evidence that conditions not up to normal level in that some regular stations could not be worked. Will be on for the 432 sprint next week. Thanks everyone for being on.

432 MHZ

From K1RZ
Cold Front just went through late afternoon. Cold and Windy with temps down in the 30s, but no snow like so many others reported. Squinched any chances of normal or above average conditions. Really fun to work with so many operators who wanted to make it happen in spite of the WX. Thanks to the sponsors. Thanks for the many who were on making 432 contacts.

From K1DY
Snowing here in central Maine as I write this! Only got on for a little over an hour at the start. New QRO (~300 watts) made a noticeable difference, especially since my rotor is still stuck pointing SW! Condx were up and down but did manage to work W2KV in FN20 on SSB for best DX of 409 miles. All contacts were on SSB and CW. Thanks to all who got on and to the Central States VHF Society for sponsoring!

From K1TEO
We had severe wx roll through during the afternoon heavy rain, strong winds and T-storms . The temperature dropped 20+ degrees and we had windy condx all evening. Not surprisingly the winter like wx led to poor condx. It seemed like a lot of the regulars were missing as well. My first half dozen CQs at the start went unanswered and that's kind of how it felt the rest of the night. Having said all that a night on 432 is still a lot of fun. I enjoyed making QSO's despite the challenges. 18 of my QSO's were on FT8 with the rest on CW/SSB. Tnx to the Central States team for running the sprints for us!

From W2KV
Conditions seemed poor with cold and windy weather. Very strong and deep QSB on the long contacts. No FT8 here on 432 so all contacts were analog. I worked K1DY FN54 on SSB and AA4ZZ EM96 on CW for 2 400+ mile QSOs.

From N2NT (N2NC)
Rough CNDX. Best DX VE3DS @ 348mi

From KR1ST
I only used the radio to solicit and make contacts. No chat rooms or what have you were utilized. After calling CQ for about half an hour with no takers on SSB I went to FT8 and stayed there. High winds, freezing, and snow; conditions were lousy. Best DX was Gary, KE8FD, at 366 miles. Thanks for the Q's

From K3MD
1.5 hours late start. Propagation fine here. Heard little to nothing on FT8

From W9KXI
Extremely rough conditions not helped at all by an antenna problem. This was definitely a night for CW. Thanks to the sponsors and to all who came out.

From W3HMS
LNA not working.

Microwaves

From K1RZ
The Spring Microwave Sprint certainly brought out a lot of operators. It would have been nice if propagation had been just a little bit better. At start the temperature was about 40 degrees and at finish at 2pm only up to about 60 degrees. Not quite enough to make any unusual, or even normal distances. But the good thing is there were a lot of stations to try with. Due to some

Sprint cont'd ...

persistence, all of a sudden a station would come out of the noise, and get in the log. My best DX was Dex W4DEX EM95tg on 902 CW at 530 KM. Followed closely by Dana VE3DS, VE3FQ also on 902 CW at 524 KM. Then Phil N8LRG EN80VI on 1296 FT8 at 443 KM, Jay NY2NY FN30RW also 1296 FT8 at 436 KM, and Tony K8ZR EN91IQ on both 902 and 1296 CW at 435 KM. Rovers active were Bill W2RMA/R FM19aw and FN00wc for 10 contacts, John N9ZL/R FM08us and FM09wb for 10 contacts and Marco KD3PD/R FN10ha and FM19ix for 4 contacts. Thanks to you three for getting out in extremely cold weather up on those mountain tops. And then there were so many others that were active too. Thanks to Central States VHF Society for sponsoring this fine event, and to ON4KST for supporting the liaison for many of these contacts.

From K2EZ

Got out for a short bit at the local grid corner. Limited time so only worked K5LLL on 4 bands from the four grids, couldn't connect on 2340 on one of those due to nearby trees.

From K1TEO

Always enjoy getting on the microwaves and testing the system that hasn't been used much since the January contest. Will have to check 5 and 10 - I heard 4 stations on 10g and none heard me and 3 on 5 G and only one heard me. Other bands seemed to work as expected. Condx on a very cold, very windy day were not great, that's for sure. Always have track meets this weekend in May but this year the meet was a little later so got to operate on and off in the morning. Tnx for the Q's.

From K3TUF

Good to be back on the air. Had a few things to fix, but thankfully all of the microwave bands were working. Great chance to check things out.

From N3RG

Condx poor but another fun sprint!

From KR1ST

I got on at around 10:30am with the only microwave band I have (1296). It didn't seem that the conditions were very good and the QSB was deep and long. I really do need a LNA as I get the feeling I'm not hearing as well as I could on this band. Even though I made only 7 Q's, I had a lot of fun. It was also great to put the new Gemini amp through its paces. Thanks to the SVHFS for sponsoring the Sprints and thank you for the Q's!

From W2BVH

Conditions were remarkably variable for the Microwave sprint. I had a S9 Q with K1RZ on 902 and then couldn't hear him at all on 1296 /2304. Didn't give up tho and within 10 minutes we connected on both those bands (and with well above marginal signals!). I'm shooting through the trees here so microwaves are always a challenge, but that's what makes it fun.

FT8 and Your Beam

FT8 has become a valuable tool in our ham toolboxes, but I see too many operators using the same antenna tactics they employ with SSB, and they don't work well.

When you call CQ with FT8, I suggest leaving your antenna alone for at least 2 "receive" periods after your last CQ in a particular direction. Replies are very often in the second period after your CQ, as it is not uncommon for an operator to take a few seconds to find and reply to a station he is interested in after his decode, especially when the band is very active.

It doesn't take many seconds for a response to be too late to decode in the period immediately after the CQ, but the response will make it through in the next period.

I hear a lot of stations call CQ, and 15 seconds later call CQ again with their antennas obviously in a different direction. This suggests that they moved their antennas sometime during their receive periods. This makes it more likely they'll miss a q in the original direction..

It doesn't matter all that much with stations local to each other, but it is quite frustrating when chasing weak signals. If you're new to FT8, you may find that understanding the dynamics and an extra 30 seconds of patience results in more grids. 73, **Al KB3SIG**

50 YEARS FOR 50 STATES ON 1296 MHZ

By Al K2UYH

The end of April was an exciting time for me. I have been pursuing 1296 WAS for more than 50 years. The first QSL in my stack of 50 States worked is from WA2VTR in 1967 for NY. I became serious about completing 1296 WAS in the 80's after completing 432 WAS and started spending more time on 1296 EME. By 2000, I had more than 35 States. In 2007, when the first two 1296 WAS's were completed by W5LUA and K5JL, I was up to 46 States. I needed AL, AR, MS, and SC. But, when I checked my cards, I found that I had no QSL cards for MN, MT, NB and OR too. Ironically, there was a 1296 dxpedition to MT in 2007 that I did not bother to work mainly because I had already worked the State (but didn't have a card). Sadly, all stations in those "lost" states were gone or unreachable. So, I had to rework these States too. **The moral is to get your QSLs while you can and do not assume anything.**

By 2020, I was back up to 46 States. MT and the three southern States of AL, AR and MS were all I needed. Then, along came W2HRO with his idea for a folding dish made from conductive fabric that could be folded and easily setup for 1296 EME. Paul said that he would get the States I needed activated.. He contacted KB7Q in MT, who had been having great success on 144 and 432 portable EME. Gene had never been on 1296. Paul convinced KB7Q to try one of his dishes on 1296. Gene was amazed by how easy it was to make EME QSOs on 1296 with a small dish and JT65C! Within about a month, he had 49 initials and I had a QSL for MT. This left me only the 3 (adjacent) southern States to work for WAS.

W2HRO - KB7Q 1.8 m to 1.6 m dish JT QSO

Gene upgraded to a W2HRO 2.4 m folding dish in January and ended the month with 60 digital and CW initials. The MT WX then turned cold (-21 deg F or -30 deg C), which reduced his operating time and started him making dxpedition plans. As Gene and his XYL both were vaccinated, they decided to hit the road and activate some states on 23 cm EME. They made a quick trial run on March 19th to AZ. Although they had some problems with weather and equipment, they made 11 QSOs and decided to move forward with their dxpedition plans.

The dxpeditions began in NM (DM52) on March 28/29 and were a great success. In NM they camped right on the Continental Divide at 6,400' and made 34 initial contacts (2 on CW). They then drove to AR (EM45) on April 16/17 to provide 51 initials (7 on CW), to MS (EM53) on April 19/20 to give out 51 initials (7 on CW), to AL (EM64) on April 22/23 for 53 initials (6 on CW and **my 50th State**), and finally to KY (EM77) on April 23/24 to add 45 initials (5 on CW). Gene was an easy contact on JT65C, but a little more challenging on CW. He made my more than 50 year quest possible!

KB7Q at DM23vs in AZ

Al fresco operating on the shores of Wheeler Lake, Alabama

Coincidently, about 30 years earlier, I drove to AR, MS and LA to make nearly these same State available for 432 WAS. (K4QF was then QRV from AL on 70 cm. Ben is still in AL and now trying to get his 23 cm EME station working). For more detailed information on KB7Q's dxpeditions see http://kb7qgrid.blogspot.com

K2UYH on the road with 8 x 432 F9FT yagis on top of the car

A zoom toast to Gene, KB7Q hosted by K2UYH on May 7. In gratitude for his state dxpeditions for 1296 MHz EME QSO's

Silent Keys

By Russ K2TXB

When you have been an active ham for over 60 years, you remember a long list of familiar call signs that you have worked or read about over the years. As time passes, you realize that some of them have become silent keys. The term “Silent Key”, is surely familiar to all of us older hams, but maybe not so clear to the younger of us. It simply means that the morse code key that the operator used to communicate with has gone silent and will never be heard with his ‘fist’ again.

In recent years I have lost a number of close ham friends who became silent keys, and so I have begun to scan the silent keys listings in QST each month for calls I recognize. I often do see old familiar calls there, and sometimes 2 or 3 in the same month. Of course it makes me sad, but it also reminds me of that op, and brings back memories of happy contacts or other interactions.

This month (May 2021), only one call caught my attention; W3SDZ. Now I did not know Vic Michael, W3SDZ, of Williamsport, PA, very well. I am pretty sure I never worked him on the air. But I can remember very well admiring the pioneer EME work that he did, and his 27 foot home made parabolic dish antenna. So I decided to do a little research and see what more I could find out about Vic. One of the first references I found was the picture (right), of an early EME conference in 1968.

L-R: K2JNG, K2AQC, K2CBA W3SDZ, VK3ATN, K2UYH, W6DNG

Now this picture is almost a who’s who of early moonbouncers. The only ones I don’t know are K2JNG and K2AQC, but I bet some Packrat readers know them.

K2CBA, Jud, was a good friend of my lifelong friend W2DRZ, and I have visited Jud at his home and seen his shack and antennas. In later years I worked him many times on 10 GHz via tropo.

W3SDZ, was possibly the most accomplished moonbouncer at that meeting and at that time. He is listed in numerous lists of early eme contacts.

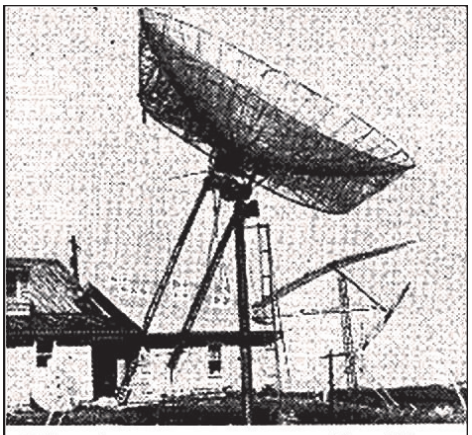
VK3ATN accomplished the first EME contact from Australia, working K2MWA, the Crawford Hill Radio Club. I read all about his stack of four 700 foot long 2 meter Rhombic antennas, and closely followed the Activities of another Rhombic user here in the US. Dick, K0MQS, built Rhombics and was the first person to work all states on 2 meters. I used to have almost nightly QSO’s with Dick on 2 meters from my first QTH near Jamestown, NY. When I moved to NJ and finally got on 2 meter EME myself, I wanted to work VK3ATN. I don’t recall why, but I ended up with a sked with VK5MC instead. But come sked time there was no sign that he was on the air. But tuning up the band a bit, there was VK3AUU coming through loud and clear! His CW signal was easy copy and I got my first down under contact on April 15, 1989.

The next guy is our own Al Katz, K2UYH, (still very much with us!), whose EME exploits are now legendary throughout the world!

Silent cont'd...

Finally, Bill Conkel, W6DNG, made the very first 144 MHz EME contact, working OH1NL on April 11, 1964.

While there are many, many, other early amateur EME pioneers that were not at that meeting, this picture sure brought back memories of all the thinking and planning and wondering I did in my early years. I could not find a great picture of Vic's home made dish, but here is a photo from an early RCA advertisement for power tubes.



Moonbounce antenna — the 27-foot diameter parabolic dish built by Mr. Vic Michael, W3SDZ, of Williamsport, Pa.; a measure of the initiative and dedication of moonbouncers.

.

Finally, in going over all of this, I found a web page on the development of amateur moonbounce. I have read it before, but it is so fascinating that I read it all again last night, sitting up way past my normal bedtime. It would be good reading for any weak signal VHF enthusiast today. See it at: http://www.ok2kkw.com/eme1960/eme1960eng.htm

The Florida QSO Party—Not a VHF Activity

There was a note on the local club reflector that there were no CW stations in Palm Beach County (PBC) signed up to operate the Florida QSO party. There were stations in each of the other 66 counties on both Phone and CW, but alas, none in PBC! My chain was yanked and I wrote to the president of our local Boca Raton ARA club and explained that I would operate CW from the club station if it could be pressed into use as many of the pandemic restrictions are being eased here. My request was answered and three of us met on Zoom with the president and secretary and made a plan for the weekend. Les, W2LK, Ralph, W1HT and I would each have a shift of 3-4 hours to keep N4BRF beaming out "PAL" CW from PBC. BRARA maintains a 60' trailer with 5 operating positions and antennas from 160m through 1296MHz. It had been closed for the past 14 months due to the pandemic, with only a single person checking it periodically. It was now time to start to open the shack on a limited basis. We were the test case. I did have a plan B to operate my home station on 20m with an inverted V dipole in case we couldn't get the club station open and working.

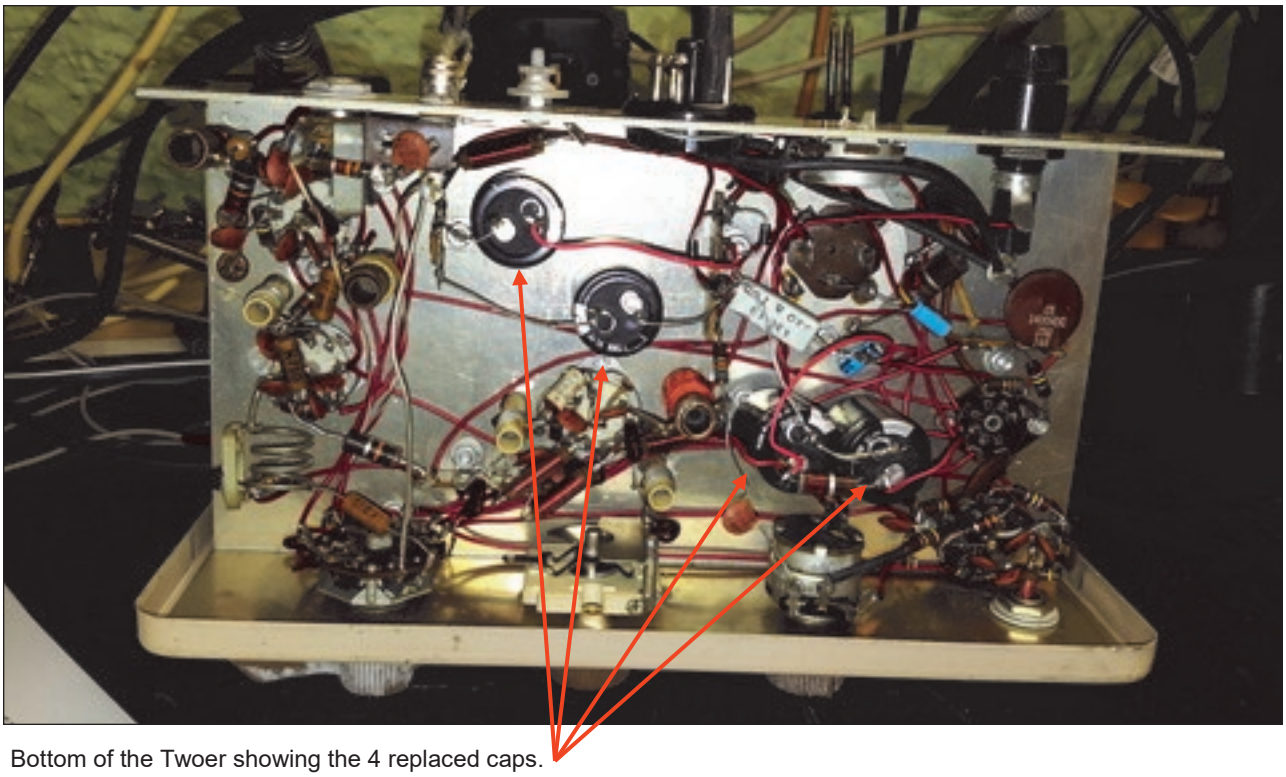
I went to the shack on Sunday at noon for my shift. Les had set up the barefoot IC7600 with WINKEY, N1MM logging and the rig was also connected to an HF SteppIR beam. It was my first experience with such an automated set-up. It was wonderful to hit the "Enter" key on the computer, send out a CQ, type in the call sign and state of the caller and have the computer do the rest. I was happy that my CW ear was still comfortable in the 20-25WPM range. The three of us were successful in making about 400 QSOs and 64 multipliers (States and VE Provinces), providing many callers on 15-20-40m the "PAL" Palm Beach County multiplier and we paved the way for more club station activity. 73 **Rick K1DS**

2 Meter AM

By **Lenny W2BVH**

This is a brief interim report on some work I've been doing to get onto 2 meter AM. In 2019 I picked up a pair of well used Heathkit HW-30 Twoers for $10 at the Sussex County (NJ) ARC hamfest. I checked them out soon after I got them and neither of them worked.

In the last month or so I finally got to work on getting one of them running. The Twoer in question had a lot of ripple on the plate supply. I found that one of the caps in the plate supply's voltage doubler was 50% of its marked value and the other was 75%. The two plate supply filter caps both had high ESR. Replacing all 4 caps fixed the problem with plate voltage ripple (it's now under a volt).



Bottom of the Twoer showing the 4 replaced caps.

On the receive side, the tube in the regenerative detector was the wrong component (a 6AN8 instead of a 6BS8) and the detector's inductor was misadjusted. On the transmit side, the inductors in both triplers and the doubler were also out of adjustment as was the output tuning cap. In the audio circuit, the mic amplifier had a lot of harmonic distortion (around 10%). This may actually be how the Twoer was designed. I made a mod to the first mic gain stage, giving up some gain for less distortion. This involved removing a cap, changing a resistor value and adding a resistor and a cap to the circuit. I got this mod out of a collection of articles on the Twoer from 73 Magazine dating back to the middle '60s. These were collected on NZ5N's web page (https://www.qsl.net/nz5n/TwoerGonsetRestoration.htm) and are very useful (though not completely accurate). My final mod (for now at least) was removing the transmit power detector circuit that's normally used to tune up the transmitter. Heathkit included it in their design to allow the transmitter to be tuned without any external instruments being needed. The story goes that this circuit steals a bit of power from the output stage and may contribute to spurs on the transmitted signal. Since I have the necessary instruments, I decided the internal power detector wasn't needed. As it is I'm getting 675 mW out of the Twoer. It should be more like 750 mW, but hey I'll take what I can get. I hear a barely audible signal when the receiver is fed with -116 dBm. By modern standards, this is horrible, but it's pretty much in spec, so I can't complain.

After doing all this (it actually sounds a lot harder than it was), about a week ago I asked Dave W2KV if he could give me an aircheck. We ended up doing a Twoer-to-Twoer QSO lasting over an hour. Signals were

strong both ways, but Dave reported some hum on my signal. After a bit of head scratching, I ended up putting back the cap I removed from the mic amplifier. Dave and I got on the air again last Friday. The Twoer is sounding good now!

There's still more that can be done, and I may end up doing more. Here are some things on the list:

1) Use a mic connector. The mic (an old, but very nice Astatic 10D) is currently hard wired into the Twoer, but I have a compatible connector on the way.

2) Try and replace the crystal with a synthesizer, using the Twoer's oscillator as a buffer. The synth should not be hard to make using any one of a number of modern IC's and an Arduino. But doing this mod would require me to provide an 8 MHz signal to the Twoer oscillator's grid at around 30 volts peak to peak. Probably an untuned amplifier. That's something I'll have to figure out how to do. The crystal I have in the Twoer now puts it at 147.888 MHz, (in the FM part of 2 Meters), which is not being good neighbor.

3) There's a published mod which claims to allow the Twoer to make up to 2.4 Watts, with just changes to the output network. It's probably worth the effort to try this, since it would increase the signal by an s-unit. There is an open question, even if the synth works: can the modulator make enough power to use the increased RF output?

4) The second Twoer I have, has a very extensive mod already in it. The mod adds a 3 tube circuit that turns the receiver into a superhet. This was done using a mod kit sold in the '60s by an outfit called Lawrence Engineering. There is NO documentation on this at all. Still it's worth putting a little work into it to see if anything can be done with it. As received, it's not working, so this doesn't look like just a day or two's work.

Needless to say, I'm thrilled to have a working Heathkit Twoer. Maybe there are some other Packrats with Twoers (or 22'ers) collecting dust on a shelf somewhere. I don't know if 675 mW would reach down to Packrat Central from up here in NJ but we could see if it does. If so maybe have a periodic 2 Meter AM get together. W2KV and I had a great time shooting the breeze with old and nostalgic technology.

If I do get a synth working with the Twoer, it goes without saying, I'd be happy to share how it was done. Let's see what happens...

Artwork by Lexie, W2SJ's granddaughter

Member Spotlight!

By Phil WF3W

BERT SOLTOFF K3IUV

1st Licensed: very early 60s
Favorite Activity: pushing the V/UHF envelope
Favorite Mode: Sideband -easy to make contacts; excitement of CW contests
Offices: 61-62 VP; 62-63 Prez; 73-present QM
Advice to the active, advanced, experienced Ham
An **HOA** is not a mistake done at the right time. Try to prepare for the frustration when planting a new antenna farm

Additional Claims to Fame:

Bert designed video equipment, e.g., optical cameras, for Apollo & shuttle missions

The melding of Bert and Amateur Radio began with a member of our club, also very good friend of Bert. He began regaling Bert about our most fabulous hobby and found a very receptive potential **Packrat**. Bert wanted to think about hamming before his answer, circa 1960. Bert's involvement in the club began in its second year.

Bert proved he was entranced by electronics, becoming a double-E. When his degree was new, he didn't know much about hamming, but the idea of talking with novel people, in new places, was very alluring. Bert insists he is not shy but of a reflective, quiet demeanor. Not seeing or knowing the other end of the RF was, first and foremost, "safe" communication, a robust way to project oneself without visual clues.

As time and experience molded Bert's vantage of communicating, he realized not seeing and often not knowing people on the other end, presented significant challenges on interacting with and learning from the vast realms from which we each forge our ham persona. Bert discovered this common bond is a major pursuit for communicators with something to say, and learn. Being social was brought home most powerfully by being part of our club. Bert made the nostalgic observation that engaging with other hams, may be enjoyed in our memories. Eras gone forever.

Bert lamented the lessening of a more *fraternal interface* between our members, their spouses, and families. I found it most interesting, Bert's observation of a more densely packed amateur community in previous

eras. Today, we have club members 100 miles away. When first licensed, Bert had the good fortune to have 10 Hams nearby. You didn't interface with "just" the ham; you came to know and appreciate hams as **families**. You made friends with new hams and friends with extended family units. Bert speaks, glowingly of when Hamming was embellished by family picnics, banquets for families, events filled with hundreds of people, not confined to RFers; folks from as far as New England and Virginia. Those who wanted to have fun and camaraderie.

Along with his scientific curiosity, and being a Packrat so soon, it was easy to collect and construct the paraphernalia of V/UHF. Higher frequencies presented greater challenges and more interest in having the Amateur community accept what could be accomplished. Band openings were invariably incredible events. When Bert was a tyro, you bought a receiver, virtually everything else was home-brew, aided by knowledge of electronics. Commercial gear was available but at a premium in which most youngsters did not, yet, luxuriate.

Bert's first rig was a **2E26** home-brew, 10-15W out. It was a fun rig and provided hamming joy for many years. Commercial rigs were not needed until he purchased a sideband transceiver. His first, was a TS-520. Aesthetics were not always foremost but the electrons flowed according to the handbook, engineering, physics and ARRL.

Today's Ham literature is more technical, simply because we know more and this has added myriad dimensions to hamming. Though identical issues abound today, e.g., though digital modes are new, classic problems remain.

With inestimable good fortune, Bert knew Joe Taylor when Taylor was a teenager. Joe and his brother made the cover of *QST* in their teens. Both "kids" were in the forefront of **meteor scatter propagation**. No contemporaries of the Taylor brothers really understood what they posited but the thrill in meteor scatter QSOs was undeniable.

For Bert it was difficult to answer the question about the differences in today's Amateur Radio practitioners. For example, any one can buy a box – notably FM – and you're into our hobby - getting on the air easily. It's an undeniable way to get next gens interested in Amateur Radio. Approaching new hams with friendship, camaraderie, with a feeling of responsibility to educate, enables us to look back and to communicate with an eye towards the future.

The development and evolution in Amateur Radio has kept more people in "the ranks" and enabled more people to sample what ham radio has to offer. As things inevitably became more intricate, more technical, home-brewing might have discouraged today's brand of ham. It would be too much of a challenge, putting together a radio that could operate in today's radio environment. Starting with microelectronics, ICs, SMC, PCB, soldering skills, etc., would suppress the excitement of many wannabes.

Education of today's Hams is not a problem in that there is an intact system to spread the RF knowledge. We have clubs that foster new hams, e.g., WARC. Warminster creates – maintains – an atmosphere filled with a learning experience for new hams, e.g., classes, then the VEC. There is extant however, a fierce competition between and among many different forms/modes of sending information. Many people will rebut hamdom, saying one need only flip-open a cell phone to talk with the world; why would anyone want to be a ham? Hamming is communicating, in an atmosphere of challenge and possibility.

No matter how much technology has improved, making some things easier, the original foundation of conquest remains: working someone further, pursuing DX, recognition of people in other areas. In Bert's ham heydays, working a ham on 6M, in Delaware, encouraged a relationship, getting to know someone new with similar interests. To wit: **W3ASD** who became a member of our club. Come contest time, you actively sought-out **W3ASD**! In Bert's recollections, perhaps friendships sprouted simply because it was a

challenge.. Working DE on 6M was far more of an achievement than today, e.g., using a 3-element TelRex and the trusted **2E26**. DXers still populate the bands. As Clarence Darrow opined, with the telephone, you lose the charm of distance.

Bert's advice to the modern ham is straight-forward: spend more time doing it. People do not get on the air very much. The Rats are 90-some strong. If you get on the air, you hear precious little activity. This is how Bert remembers the air waves. Hams should rediscover nightly enclaves, in their shack, tuning around, listening and making contacts. Members would listen and when someone asked a question, someone was there. And don't QSO only with the club! Get to know people on-the-air! It's FUN!

The Internet may be easiest, fastest, even most accurate but it leaves Hams – all of us, really – especially vulnerable to the kernel of what Bert has been teaching, because he has seen it, lived it. The greatest advantage – need – of longevity is inheritance, preservation or conservation of the information repositories of the past. These can be books, oral histories, lectures, even YouTube videos. But none of these touch us, physically or emotionally, the way face-to-face interaction indelibly impresses the presence of others on our own personality and opinions. The most salient point Bert made, could have made, is looking to people as resources. Live-action education bound by friendship. This has to be the ultimate treasure of Amateur Radio. We have lost this fellowship and we will drift apart if we do not rekindle it. Our reflector reflects the togetherness we have but Bert sees it as unfulfilled; we need to use it more.

Another missed opportunity, is "intercom". 221.400. Every member had a rig, sitting in the back of the shack, through which any member could reach out, to any other and ask a question. And "they" were there. There may have been paltry participation hour-by-hour but when help was needed, it was there. At the same time, a cohesive force wended its way through, among and between those present. Simple friendship. Another tool was RTTY, with *auto-start*. The most beautiful example of rolled, yellow paper in history.

To the future, Bert's vantage offers hope in that cellular technology, and all those towers, will not force the demise of our most fabulous hobby. It will compete with radio, for those interested, but never strong enough for a fatal blow. Cell phones proffer one thing ham radio does, viz., communication. And that is the only thing it promises. Hamming comprises learning, meeting people, talking with other people, in other countries, cultures, societies. This is what should be stressed to those evincing an interest in RF, i.e., differences. Communication is a mere veneer. What Bert and I did via ZOOM was obviously communication. It was NOT, nor could ever hope to be or replace, hamming. To delineate our strength, not everybody has the same interests. But Amateur Radio has enough to interest any and every body & mind. Bert's technical background alone could not give him the experience(s) of RF-for-real, i.e., from transmitter to squirting into the ether, including space, Bert's forte.

We also discussed the "appliance operator" as ham. To Bert, this is merely another of the aspects of amateur radio. "AO"s can become master contesters, doing things with an eye on improving a score. Buying the newest and the best may be interpreted as adding buttons to operate or press often making such a ham happy; taking on the challenge of communication, in lieu of technical depth. But it does generate activity, a tangible benefit to us all!

Interestingly, Bert did not see elimination of code as the inexorable slide into a black hole. However, under further probing, Bert feels taking the technology out of amateur radio, may not result in our age old flavor of amateur radio, perhaps prevent its thriving. Without technology, you have a population of cellphone aficionados. An HT is a cell-phone call , to the person down the block or 20 miles distant. Why bother with a ham station if its used as a cellphone? If everything was an appliance, only, ham radio would have a hard time continuing. To the masses, cellphone appliances are technology's leader. Digital is a technology issue in Ham Radio and look at the activity on our reflector! Good or bad, liked or scorned, it encourages hams to speak up and out, and that is positive. Cellphones can be distilled into *how many bars do I have* and a

charge remaining in a battery.

No, after 60, some, years Bert is not quite as passionate as earlier. *Been there, done that* is part of this but also of influence are the restrictions on antennas imposed by his HOA. It is very frustrating to not be able to do nearly what he would like to accomplish. In earlier years, if you wanted to erect a tower – with adequate acreage – you put-up a tower. In today's shifting demographics, hams come under the rubric of *nuisance*, to wit: a tower now requires a permit, neighbors are far more cognizant of, and resistant to ham footprints in "their" neighborhood.

And the inevitable, unconquerable issue of age does intrude. Homebrew can become a chore more than a pleasure. You think twice about climbing any tower. [Bert used to climb and hold-on with one hand, e.g., to fix a cable]. A dream station would aid in rekindling his passion but the simple truth is his interest has waned, although Bert can't quite specify why. A disillusionment born of getting tired and sometimes asking why do I have to keep doing it. But Bert injects that some activities are, still, FUN. After 60 contests, he tries to get on, make contacts and scores for himself and the club. There is still a desire to put together some gear and talk to people on the air, often renewing acquaintances. If a QSO breaks the dent of years without contact, hearing that bygone call braces enthusiasm. This works its magic even for local hams, talking on the phone is just not the same thing!

On the positive side, Bert's monthly *Cheese Bits* column is memorabilia, with power to relight the experiences through which he lived. Going back 50 years does, in a real sense, present him with a picture of good memories, via the simple time-machine of memory, and sharing those snippets of time and triumph. It is, of course, nostalgia but without the requirement to jump-up and redo antennas or towers, or mountain experiences, without a need to repeat the past to enjoy today.

There is, so far, the enthusiasm of the younger members. Throwing-out questions on the reflector, letting every age-group, every niche, know, there are extant those who want to learn, to know. They trust the combined genius and experience inherent in the 'Rats.

The big tip for balancing family with hamming is to be aware of the responsibility. The time away from family works two ways: missing family endeavors and family missing time away from you. Unfortunately, looking back is the superior lens through which to see and ponder missed opportunities. You can certainly look forward and apportion your time for your family, you, and your hobbies [and work].

There is advice for the club, of course. Bert wants to see the endearing qualities of closeness and friendship develop more fully, more robustly. He laments the disappearance of *Ladies Night* aka **the banquet**. In fact, he has injected, into his column, a wake-up to the BOD to re-sked this event. Bert broaches the social aspects of the past, viz., the socializing and sociability of having club members as friends, outside ham pursuits. This, in turn, fosters families getting to know each other and socializing. This does not happen anymore.

Bert admits, sheepishly, he doesn't know club members well. He talks with them during contests, etc. What is missing is a relationship. Lockdown is deterrent enough. We should attempt to know – befriend – club hams. It will benefit individuals as well as Packrats. Make no mistake, face-to-face is the true path to knowledge about people. We need relationships, allowing others to see who we are.

On top of lockdown, we have concomitant change in Elmering. The reflector allows one to garner 10 answers to one question – different POVs is good. Elmering used to involve shlepping gear to a QTH, a long Hmmm, a long differential diagnosis list and then WAIT! I know just the guy/gal who knows all about this. This method is with us still but it has a new complexion, viz., novel media. Some of us may harbor a reluctance to seek out advice & counsel. At one time, we had a *technical committee* and **W2SJ** has tried to

Bert cont'd... reinaugurate this. One stop shopping for help [not forgetting Mike's, **N2DEQ** innovative Resource Program].

To Bert, not using any club resource is a travesty. To keep alive what we profess we are, we need to consult with each other, maybe in a *Technical Committee of the Whole*. Knowing each other is a perfect highway along which to exit, when you find what you need or ask or seek.

Bert is a true Packrat. He has socked-away, pictures aplenty of stuff from Earth to the Moon. If you have a remembrance and want a picture, try Bert! Our history, is history that deserves to be remembered!

Remembering

Charlie Clement, **W3IBH** CHARTER MEMBER [5 15 56] SK 10 31 65
Frankie Brick, **W3SAO** CHARTER MEMBER [5 15 56] SK 11 6 76

A Radio Telescope on the Far Side of the Moon

NASA has let a contract to study the feasibility of constructing a radio Telescope on the far side of the moon. (No S9 noise from switching power supplies there:-)

Here are some links:
https://www.nasa.gov/directorates/spacetech/niac/2021_Phase_I/FarView/

https://www.universetoday.com/150417/nasa-is-considering-a-radio-telescope-on-the-far-side-of-the-moon/

Tnx **K2UYH** for the references

Elsie Talks About Her Ham Experience

Here's a brief video of a delightful young lady talking about her ham experience so far: https://youtu.be/deWc_tP59jg

SST Sprints on Friday and Sunday: Great CW Learning Tool For Beginnners

What a great tool for anyone with a smidge of CW interest.
Slow code and easy exchanges.
All you really need to do is log the call sign. If you miss the name and state, no big deal, just move on to the next station
The bands are packed with SST stations 20-40-80 meters.
You can find all the info by googling K1USN. Here's a start: Go to http://www.k1usn.com/sst.html then click on "K1USN SST Rules" and "K1USN SST FAQ"

I'm even finding many high speed CW ops during these sprints, anxious to make contacts and help beginners running slow code.

—**K2LNS & W2BVH**

Former K2LIM Contest Station Documented on the Internet

These links are for the contest station that I donated a LOT of material to and helped them with antenna upgrades.

As with all groups, participation of operators dwindled and it started becoming more like work than fun. The property owner has a use for the grid limo, where it is, and a few of the towers still need to be removed.

At one time there were 13 towers at the contest site. Each operating position had at least 4 different choices for antennas.

https://www.qsl.net/n2sln/june2012.html

https://www.qsl.net/n2sln/june2009.html

—Warren **WB2ONA**

MICROWAVE SPRING SPRINT (NON) REPORT

By AL W9KXI

Participants: all of the Mt. Airy Pack Rats in FN12 – KA2LIM, WB2ONA and W9KXI

Our results? We were unable to participate in the Microwave Sprint because we were doing tower work and antenna work at the QTH of KA2LIM.

This was a "downsizing" activity. Two of Ken's four towers (five with his EME antennas) were removed and seven (or… was it 8?) antennas were removed. One of the antennas taken down (a 222MHz Quagi) was later reinstalled on a different tower, as a planned part of the project.

The following antennas were removed: 20M, 17M, 15M, 12M, 6M, 2M and 1.25M.

This is some of the inventory lying on the ground:

The antennas on the saw horses are new antennas for, Ken's EME set-up, awaiting installation.
The flatbed trailer with the tower on it is one which was used at the K2LIM contest site.
The person wearing the orange helmet is Al -W9KXI. Standing next to me is a visitor, Neil – N2NRL.

All of the lifting of the antennas was done using the power of the "bucket lift". This made all of the work so much easier, more efficient and safer.

This next picture (taken on Saturday) shows the 1.25M Quagi being installed where a 2M Yagi had earlier been removed.

Those are 2x4's carefully strapped to the "bucket" to hold/carry/lift each antenna

A special "Thank you" to Warren for the use of one his hard hats. Hard hats protect your head when you forget that there are 2x4's strapped to the bucket and are directly in your path of travel.

We started the project on Friday morning at 10:30am. By 5pm Saturday:

- Antennas for the "bottom 4 bands" are now all on one tower.
- 2 towers were down and <u>completely</u> disassembled.
- Six (or was it seven?) antennas were ready for their disassembly process.
- There were no cuts, bruises or the need for medical help.

A very <u>special</u> "Thank You" goes to Jean Kent for the fabulous meals she served.

"Thank you" also goes to Gregg – NX2W for his help Saturday afternoon.

The Wayback Machine
In CHEESE BITS, 50 Years Ago

Nibbles from May1971. Vol. XIV Nr 5
de K3IUV Bert
(*author's comments in italics*)

"**Our Prez Sez"**. Prez El, **K3JJZ** (*also editor at the time, and our current auctioneer*) picked another worthy endeavor for the members. Still worth repeating:

> Nominations for officers are coming up. Can you nominate a good candidate?
>
> Could you volunteer yourself for a position?
>
> Become involved. It's much more fun if you're a part of this commotion.

Technical Article 1. A second continuation of the description of the UHF TV situation in the Philadelphia area at the time. The NJ educational council announced plans for a series of stations to cover the state with UHF signals. Channel 23, the flagship station located in Camden, is scheduled to go on the air in March. This month's information also included some humorous comments about using your UHF converter to receive stations on the 432 Ham Band. Read the article for a few laughs.

Technical Article 2. Jack, **W2AXU** contributed another interesting article titled "Selecting JFETs for Converter Use". Jack provided a discussion of the parameters that determine the device usefulness for the converter front end. Then he included the design of a simple test circuit that one could use to screen their collection of devices to find the best one. He then gave some set up suggestions for the mixer device, and optimum parameters to look for in the test measurements.

New Products of Interest. From Lynn, W3NSI. A two- meter SSB Transmitter. A low-cost circuit board was released by Spectrum International. It comes with construction, alignment and testing details. The unit provides 12 Watts out with +24 V dc power. The circuitry contains an audio amp, balanced modulator, 5 Mc amp with crystal filter, mixer, driver, and linear amp. Price is $4.95, and 25-cents postage (*wow, what a buy*!). Also now available is the Multi-Com SSB-3. This is a single band SSB Transmitter / Receiver. Available for 80, 40, 20, or 15 meters. It provides about 4 watts output, and sells for $195.

From the Book Rack. Paul, **K3WEU**'s monthly column covered the book "73 Vertical, Beam, and Triangle antennas" written by Edward Nell, and published by Sams. $4.95 softbound. 160 pages. As the name suggests, the book describes 73 individual designs in an order that begins with simple construction and progresses to more complex arrangements. "The serious experimenter will find exactly what he needs, in this book."

WWV – WWVH Changes Broadcast Format. Submitted by Jack, W2AXU. Effective July 1, 1971, the transmitted format will change. CW announcements of time will be replaced by voice announcement. WWV will use a male voice, while WWVH will use a female voice to allow easy identification of the station. In addition, the format of the signals transmitted between time

announcements will change. Full details can be found in the article.

1296 Net. It was announced that the club will start a 1296 net, on May 3rd. To be held weekly at 10 pm, the net control station will be Tony Sousa, **K1SFF/3** (*later **W3HMU***) who is located in Ottsville. To accommodate the new net, the 220 net will move to 9 pm, and the 432 net to 9:30 pm.

Calendar. May 8, the 15th Anniversary dinner at the Buck Hotel. May 16 will be the planned demo of ATV from an airplane. Stations from Philadelphia to NYC were expected to pick up the transmissions. Video Frequency will be 439.250 (use your UHF converter). Audio frequency will be 50.20 MHz (use your 6-meter receiver). The Shriners Hospital will be acting as the ground station. Next meeting, April 21. The agenda will be ARRL night, with a talk about the amateur space program and how to make contacts using the Oscar satellite.

Membership. Visitors last month included **WA2LTM**, Doug. (*Doug has been a longtime friend of the Packrats, and remains active on the UHF frequencies*).

Swap Shoppe. By W3ZRR. *(Always nostalgia. Now we use the club reflector.*): For sale by Lynn, **W3NSI,** a Clegg Zeus Xmitter ($225) and an Interceptor receiver ($275). Also, a model 19 Teletype station with power supply, a TU, polar relay, all connecting cables, and "extra paper and tape." Also from Lynn, "Packrat Power Supply Kits." 150 V dc at 150mA or 280 V dc at 110 mA. Complete kit includes parts and mini-box housing. $7.00 for members, $8.00 for non-members

Miscellany. *My apologies for scrambling Ron Cohen's call in last month's column. Ron is **K3ZKO**, not **W3ZKO**. Thanks to Phil for catching this. I didn't receive any feedback on my April Fools offering. Did anyone catch it? Or maybe no one thought it was funny? Postage for this issue was a single 6-cent Eisenhower stamp. (6 double sided, 8-½ x 11" sheets). As usual, many "folksy" comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, or for more detail on any of the above items, visit our website (**www.W3CCX.COM**) and read the full issue scanned by **K3IUV** (me), and posted on the website by **W3SO**, our webmaster. I have also posted the club Officers history, club Membership history, and Packrat Inventory (updated frequently) on the **W3CCX** website. These files are password protected, and only accessible to registered members. Have you registered? I hope you enjoyed reading these bits of nostalgia as much as I did in writing the article. If yes, you might let me know. Thanks to those that did.*

thirty, de **K3IUV**

(comments or corrections to: **K3IUV@ARRL.net**)

Events

For inclusion, please direct event notices to the editor.

June VHF Contest - Contest - June 12-14, 2021. See http://www.arrl.org/june-vhf for rules and details.

Firecracker Hamfest and ARRL Convention- Hamfest - July 3, 2021. Harrisburg, PA. See http://www.W3UUu.org for details.

Murgas ARC Hamfest & Computerfest - Hamfest - July 4, 2021. Plains PA. See http://hamfest.murgasarc.org for details.

Sussex County ARC - Hamfest - July 18, 2021. Augusta, NJ. See http://scarcnj.org for details.

CQ WW VHF Contest - Contest - July 17- 18, 2021. Details to follow.

222 and Up Contest - Contest - August 7– 8, 2021. Details to follow.

10 GHz and Up Contest (Round 1) - Contest - August 14 – 15, 2021. Details to follow.

September VHF Contest - Contest - September 11-13, 2021. Details to follow.

10 GHz and Up Contest (Round 2) - Contest - September 18-19, 2021. Details to follow.

EME - 2.3 GHz & Up – Wknd 1 - Contest - September Date TBD

EME - 50—1296 MHz – Wknd 2 - Contest - October Date TBD

EME - 50—1296 MHz – Wknd 3 - Contest - November Date TBD

For those interested in an online "Contest Only" event calendar for VHF+, see https://www.qsl.net/n2sln/contestcalendar.html

How to Identify an Unknown Ferrite Core

A YouTube video on ID'ing anonymous ferrite cores. (Many of us have a bunches of these kicking around the shack).

This video is right from the horses mouth: A Fair-Rite product manager.

https://youtu.be/Q95Vwk3kZok

—W2BVH

WSPR May Hold The Key To MH370 Final Position: Hackaday

The popular technical website "Hackaday" has a brief article speculating on how K1JT's WSPR program and reporting network may bring to light the fate of Malaysia Airlines Flight MH370 which disappeared from radar screens in 2014.

Worth a look.

https://hackaday.com/2021/04/24/wspr-may-hold-the-key-to-mh370-final-position/

—W2BVH

Cheese Bits
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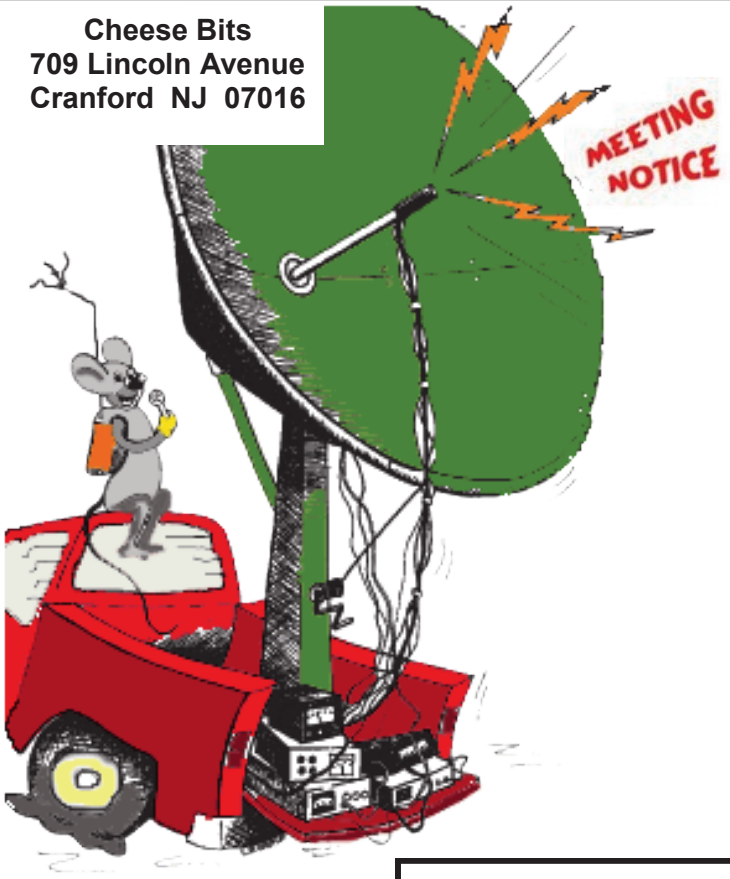
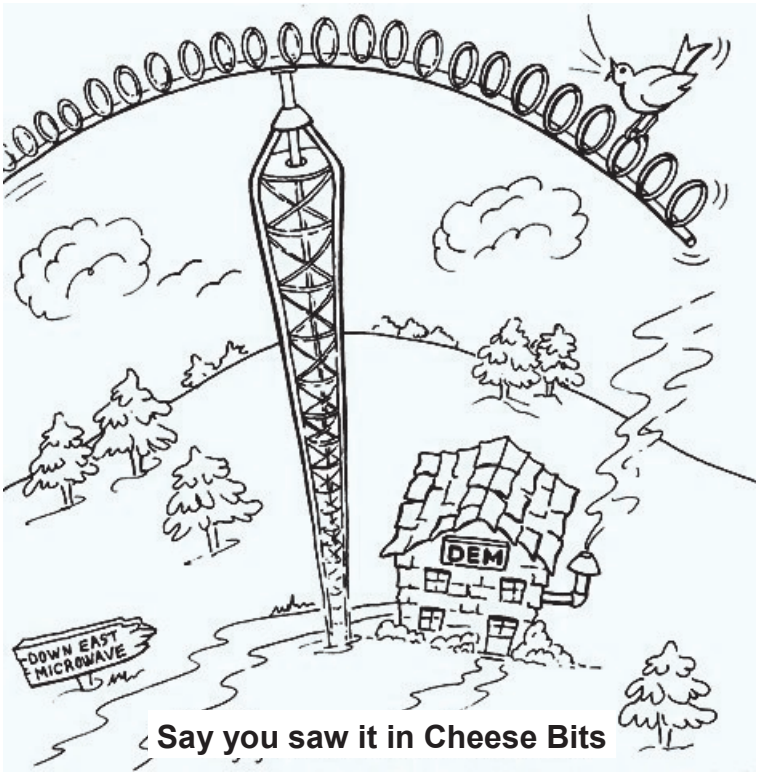


TO:

MT. AIRY VHF RADIO CLUB, INC.



Say you saw it in Cheese Bits