



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LXII

October 2019

Number 10

PREZ

SEZ:

Since the Fall weather is obviously here it must be time for the Sprints and the last few-but-good Hamfests before the frost is on the pumpkin. Now I have to find an Octoberfest somewhere in the area to make the month complete! (HI) It is also time to get out and finish off the tower and antenna projects too. **November and December weather is just too unpredictable to work outside.**

The ARRL September VHF contest is here and gone. I hope as many Packrats as possible got on for at least a few hours. Ken K2WB, Bob W2SJ along with 9 others went all in and spent the entire contest on High Knob. They did well even though they had to cut back on some of the higher bands. You can read more on the High Knob story on pages 6, 7 and 13. Did I mention they found a very unique way to use a few HackRF Ones? These radios also look like they may make a good starting point for low power rovers. It looks like you could add amplifiers and filtering as time and money permits but you get a lot of radio right out of the box. These units might also be a good starting point for your own frequency agile beacon.

Also in these past few weeks were several Fall Sprints. I hope everyone got a chance to operate at least one of these fun contests. They're only 4 hours long. You can usually find a list of interesting contests above 50 MHz at the end of the Cheese Bits.

October's General meeting will include multiple presenters on DMR and the Packrat Talk Group. If you have a DMR hand held and need it programmed bring it to the meeting. Also a few

preprogrammed HH will be available for loan. We may find DMR Packrat talk group useful for Assistance during the January contest.

It's not too soon to think about the January contest. If you need to borrow some equipment for the January contest let the club know at the October general meeting. Also, now is the time to put the January contest on the family calendar. My wife gets upset when I wait until the week before the contest to tell her!

This year the November meeting will be the January contest planning meeting. Mike N2DEQ will lead the evening and call on several other Packrats to help explain this year's strategy.

The December meeting is our annual Packrat Holiday Social. Come early – 6:00pm and come hungry! Encourage your fellow Packrats that may not always come to meetings to attend. You may have to drive some of our older members to the meeting. Some of us have trouble driving at night!

Remember I mentioned Fall Hamfests? Well, the RF Hill Radio Club is holding it's Hamfest October 20th in Sellersville Pa. This is not the last one of the season but usually is a good one.

Last year one of my fellow Packrats told me about a new SDR offering from Icom, the IC 9700 . I'm curious if any Packrats are using one and how they like it. It also looks like a nice companion to the Icom 7300 for a low cost shack. I'm told the user controls work similar too.

One last comment. As a club, one of the reasons the

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222.98/224.58 MHz (PL 136.5) Hilltown, PA

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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:

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:00 PM	224.58R MHz	WR3P FN20kb Ralph
7:30 PM	50.145 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

Packrats are successful is because of its members who volunteer their time and efforts for the good of the club. The upcoming NEWS/Packrat led MUD



conference is in the Fall of 2020. **We need presenters.**

If you have an interesting project consider putting together a presentation. If you are asked to help out with planning or working at the conference, please seriously consider doing so. The club has a long and proud history, a sizable portion is due to the many volunteers throughout the years.

Don't forget save some time to work on your latest project.

Have some fun, learn more. Build something!

73, George KA3WXV

September Meeting Pics







It was worth 17,907 points!!

HackRF One purchased at Dayton Hamvention	\$350
Software investigation	6 Months
Adding 17,907 points to the log!	Priceless!!!

My story started at the Dayton Hamvention in 2016. While looking around, something caught my eye in the SDR World. This is when I spotted the “HackRF One” for only \$350.00 (what a deal). It was at that instant I knew what I wanted to do with this marvelous device.

What makes the HackRF special is that it will not only receive from 1 MHz to 6 GHz, it will also transmit. For years the multi-op stations and rovers have been taking advantage of the rule limiting multi-operator participants to frequencies of 2.4 GHz and above when operating as individual entrants. Simply put, the rule is: “No operator can contact the multi-operator station they operated during the contest with the exception being any 2.4 GHz and above.”

The previous exploitation of this rule has been by making laser contacts. It has been proven several times that it is a legitimate QSO.

During the September QSO party each laser contact is worth 4 QSO Pts. Typically we will get 7 to 10 contacts amongst the multi-op group that goes up to High Knob for the September Contest. This adds 28 QSO points and 1 grid in our case and it is worth 4,889 points!

Using a “HackRF One” rig, it would be possible to add an additional 3 bands (2.3G, 3.4G and 5.7G). All I needed was a computer and the SMOS (small matter of software). How hard could this be?

Getting the normal promises on how easy it was from the vendor at Dayton, my quest to find software began. As it turns out in 2016 it was not so easy. I found a lot of SDR programs that made it a pretty good receiver, but nothing for making it a transmitter. After a month or two, I gave up, after all this is just a hobby. My dreams for getting these extra points went dormant until May 2019. My friend Holden KD2JPV and I were talking about SDR radios and I explained my frustration with the HackRF device. He was intrigued with the idea and I lent him my HackRF SDR. Personally, I felt it was a futile effort, but a fresh pair of eyes might help.

Almost 3 weeks before the September VHF contest, Holden brought my HackRF back to me telling me he found SDR software that would do it, even though it was a little clunky to operate as a transceiver. Apparently some time after 2016 the software folks caught up with me. I immediately downloaded SDRangel and tested it on my computer. I was able to transmit and receive. After some tests on 2 Meters I was satisfied that it would work.

This year the SJMT (South Jersey Mountain Toppers) decided not to operate 2.4 and up due to lack of planned manpower. I thought I would have to wait until the 2020 September VHF contest to prove my point.

While talking to Bob W2SJ about my plan and my having to wait, he asked how much are the units. The price has dropped to \$112 for a kit version and \$164 for an assembled one. I purchased several units hoping that I would be able to sell them to the group. In true form the Mountain Toppers came through. We had **plenty of units** for the September VHF contest 2 weeks before we went to the mountain.

Somehow, we managed to have 10 units, one as W2EA and the 9 others bought their computers to operate their HackRF One's at High Knob. This gave us 9 QSO's on 3 bands with each QSO worth 4 points. That is

17,907 cont'd...

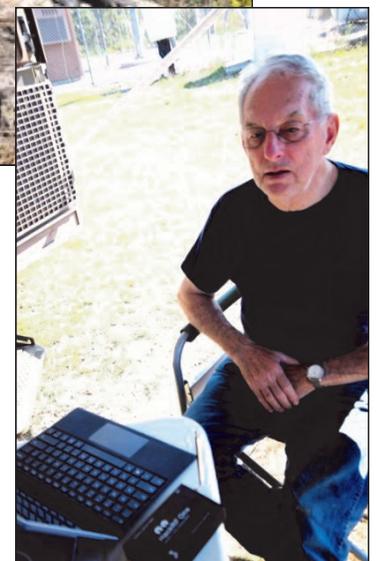
108 QSO points, which is the same as making an additional 108 contacts on 6m and 2m.

In addition to that we picked up 3 more grids FN21 x 3. The bottom line: the HackRF contributed an additional 17,907 points to our score. Giving the South Jersey Mountain Toppers ARC (aka W2EA) a total score of 124,265 points which is applied to the Packrats September VHF aggregate score.

There are now several other SDR units available that will both transmit and receive, and the software keeps getting better. Next year it will be easier to pick up the extra points. There is a plan for the SJMT group to have a 100% of the participants with a HackRF or similar device. As in the other bands we leave nothing on the table.

Going forward to September 2020, I ordered a Porta-Pack that will eliminate the computer. Giving me a portable station that is totally self-contained. But that will be another story.

73's Ken K2WB



SITE-SEEING IN SOUTH JERSEY

Rovers have a never-ending search to find better operating locations. W3ICC/R has operated from FM29wx Toms River which gave good results up and down the coast, but disappointing signals from the heart of Packrat land. W2PED spent considerable time on Radio Mobile (<https://www.ve2dbe.com/english1.html>) looking at path profiles as well as the impact on travel times, and came up with several candidate sites. The suggestions from AA2UK's first-hand experience were very valuable.

The first site FM29tw, in Manchester NJ, was on *Hill Top Road*, a promising sounding VHF site that also looked good on Radio Mobile! Although we worked a number of stations through 432 MHz, we unfortunately had technical issues on the microwave bands. Our DEMI weak signal source proved that we were hearing but with poor sensitivity. We lowered the mast to check things out, and the last section of mast wouldn't retract. It took two men hanging on it to encourage the last section to come down. Another lesson learned; don't extend the mast to full height. Measuring the Tx power, both 1296 and 2304 had no output. The fact that the problem was common to both bands helped isolate the cause. When the IF transmit power was measured, we found an SMA connector had worked loose from serious levels of vibration in the rover! We were elated that tightening the connection fixed the MW problems. Once we were operational on 1296 and 2304, we worked several stations but signals were down from what we expected.

Next, we drove another 30 minutes south on RT539 into the pine barrens near Little Egg Harbor township to scope out an area recommended by Bill, AA2UK. The second site at FM29tr near the military bombing range was nearly 70 ft lower in elevation but the pine trees were also much lower; our mast would easily clear the 10 ft trees. We set up around 8 PM in the dark and found stations to be stronger on 432. Signals to most stations on 1296 and 2304 averaged at least 10 dB higher than the previous site, a definite advantage. The downside was that coordination was difficult as cell coverage was very spotty from the site in the middle of the pine barrens. Without a beacon within ear shot, we couldn't accurately calibrate the antenna rotor. We will, nevertheless, use this site in future contests, unless a better one emerges.

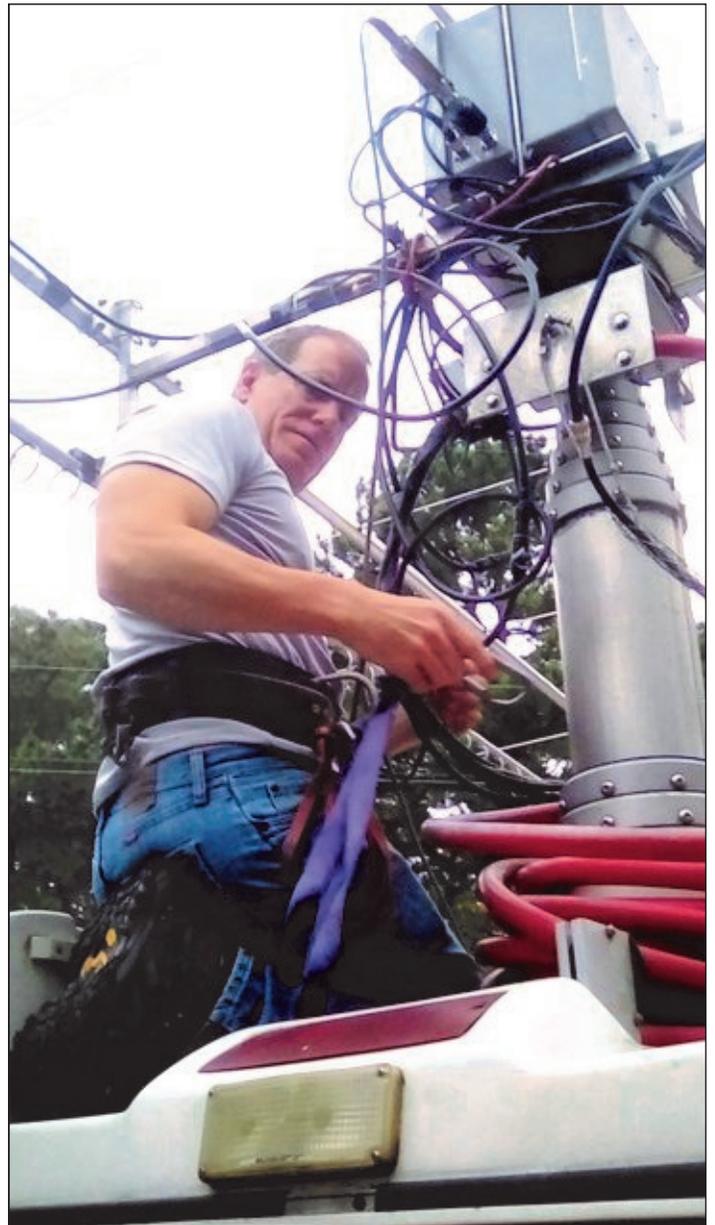
We learn or re-learn some valuable lessons each time we take the rover out:



- Completely check out all bands before we roll. Don't depend on how well everything worked the day before.
- While ground elevation is important, so is the height and type of trees, as is terrain obstructions which are not visible from the ground.
- It's critical to check out new sites in person before the contest. Can we get off the road? Is access to the site restricted by gates or armed guards?
- Will the trees on both sides of a narrow access road wipe out the antennas?
- Without 4 wheel drive, is there quick sand?

Thanks to N3RG, KR1ST, W3GAD, AA2UK, W2SJ, K1RZ, W2BVH, WA3NUF for their help with on-air checks, which was invaluable to understand the effectiveness of each site.

73, [W3ICC](#) and [W2PED](#)



Back to the Future Part I

Over the last year, I sold my rover van, the EME antenna trailer, all my roving antennas, microwave gear, batteries, and cables. We sold our house in Blue Bell in July. I still enjoy VHF operating (and limited EME in Florida) and made a few modest attempts at roving using a rental car and limited mag-mount verticals this year.

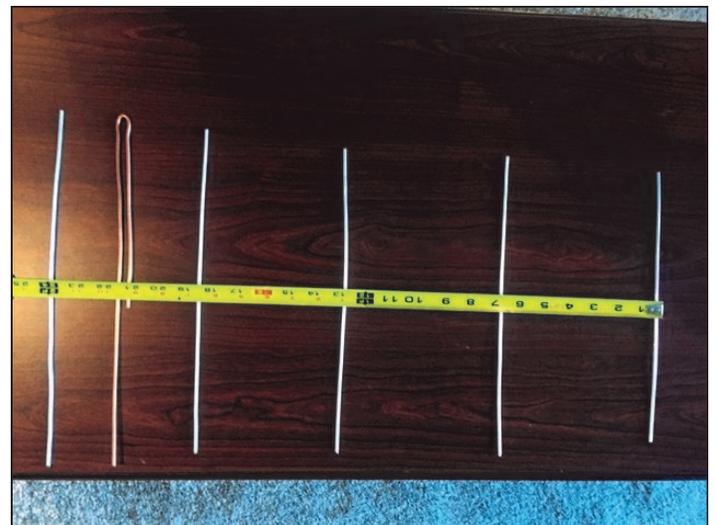
After attending the club meeting in September, I heard enough that made me decide to come back north from Florida for the January ARRL VHF SS. But what will I use for rigs and antennas? I contacted my harmonic N1XKT and asked him to store a multiband transceiver and a 222MHz transceiver for me. Thanks to a 3-hour session with Roger, W3SZ, at his shack, I have my LimeSDR transmitting and receiving on bands through 3456MHz. The next step was to consider potential VHF-UHF-uW antennas that are a step up from the whip antennas and 6m dipole that I used in the recent past. Having a day with no scheduled activities (yes, this is retirement) I checked out the Kent Britain, WA5VJB "Cheap Yagis" website at <http://www.fredspinner.com/WOFMS/CheapYagi/vjbcy.html>

I jumped into the car and headed to Lowe's to see if I could gather parts and get started on the antenna construction, leaving the parts ready to be easily put together in the future prior to the contest. Sure enough, they had the three items I sought: solid copper wire for the driven elements, solid wire for the parasitic elements, and 1/2" pine boards for the booms. Although Kent's instructions call for 10-gauge copper for the DE, Lowe's only stocked a 25-foot roll of 8-gauge that would also be useable. The parasitic elements are described as 1/8" diameter for both the 144MHz, 432MHz and 1296MHz Yagis, with 3/16" elements for 222MHz. Lowe's had a 50-foot roll of 9-gauge galvanized wire that would make do. Their smallest 1/2" pine was 1.5" wide and 3' long, so I had the boards ripped to meet the specifications of his original design using pieces that are 1/2" x 3/4" and cut in length to accommodate a rear mounting U-bolt. Total charges for the three items were \$35.42.

It took a little over 2 hours to measure and cut all the elements for four Yagis using a heavy-duty diagonal cutter, one of the few tools that I have kept handy in our short-term rental unit. You can see by the photos that all of the elements can be easily kept in a small tube and rapidly assembled.

More to follow

Rick K1DS



WA3QPX CRAB FEAST 2019

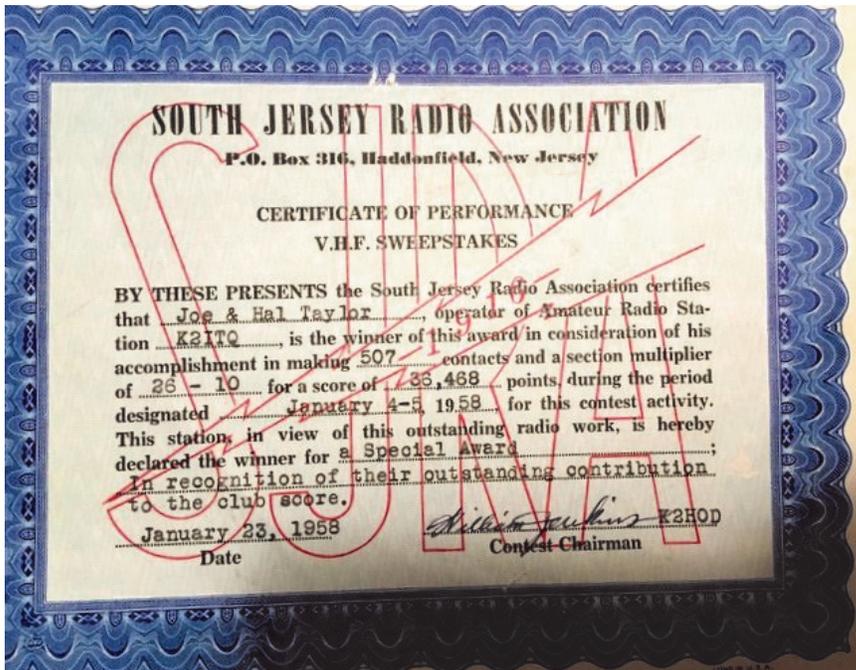


OLDEST CONTEST AWARD ? (part 2)

Hi Lenny,

Here's something of possible interest for the next issue. I enjoyed seeing the K3IUUV certificate for "First Place winner" in a March 1963 VHF contest. Bert wondered "if anyone has an older certificate in their archives". I guess I'm another incorrigible Packrat. I've attached copies of certificates for winning performances in these events: 1. January 1958 VHF Sweepstakes (top score, nationwide) , 2. June 1959 VHF Contest (Multi-op winner, SNJ section), 3. June 1961 VHF Contest (Winner, SNJ section)

My callsign at the time was K2ITP, and my brother Hal was K2ITQ. -- Joe, K1JT



Are there more 50 (more-or-less) year old contest certificates lurking in Packrat file drawers? Please send pics to the Editor.

Something to be proud of!

--W2BVH (lennyw@comcast.net)



Where in the world is WS3O?

Just in case anyone has wondered where I have disappeared to, I have been on end-to-end business trips since July. Here is a picture of one of the telecom sites I visited, in the Dominican Republic. Sure would be nice to have that tower.

-Bill, WS3O



Fall 2019 2 Meter Sprint Reports

- **From Michelle KB3MTW**

Here are my measly totals: 4 Bands, 57 Q's, 18 Grids, 1116 Points. 2 meters mostly with FT-8. Less power less chance of getting into neighbors electronics

- **From Ray N3RG**

I operated for two hours SSB/CW with a few FT/MSK contacts at the end so it was a good mix. With me working and up at 5am it was a struggle to stay awake so I packed it in a little after 9 PM with 31 Qs and 17 grids. Bottom line... I had fun!

- **From Bob W2SJ**

I operated SSB/CW for 3 hrs off and on with 32 Q's and 14 grids. No FT8 this time. I used my Flex 1500 and my 2 meter interim xvtr (usually used on the micros) with my Beko amp @ about 375 watts. Really good contest conditions!

- **From Bill AA2UK**

I operated all but the last hour. 39Q's and 26 grids. Mostly FT8 some MSK144 and 5 SSB Q's.

- **From Lenny W2BVH**

Had fun in the 2M sprint, as I seem to do in all contests. 22 Q's, 7 grids, 154 points, about 1-1/2 to 2 hours operating. Most were phone Q's but I did have a nice (and welcome) handful of FT8 QSO's.

I operated Low Power with the 2M brick I used to have in the car, since my 2 x 4cx205B amp is still blowing circuit breakers and I'm not that anxious to work on 2.2 KV equipment. (I'll get to it eventually). My rotor also hung up a few time during the contest (hopefully just interference from a rotor loop and not the rotor itself). Neither of these things seemed to interfere with the contest fun factor. Ham radio (at least at my shack) seems to often involve a certain amount of problems to be fixed, or coped with (or ignored). Kind of like owning an MGB or a Sunbeam Alpine -- its a little surprising if everything is working as it should. Hope you participated and had fun too!

W2EA September Contest Results

The W2EA operation produced the following: 10 Bands (no 10 GHz), 613 Q's, 145 Grids, 123685 Points including almost 18000 points using "HackRF One" rigs. (See separate article in this months Cheese Bits). Still no EME Q's (maybe next time)... 73, **Ken K2WB**

W9KXI September Contest Report

From my valley location in FN12ne – I had two primary objectives for this contest:

1. Have Fun. When it stops being Fun, or it feels like Work...Stop. Take a Break.
2. To have at least 3 Q's on 23cm. [But... FIVE would be really really nice.]

I operated both days. I found that any enhancement was.... limited, Very limited....if at all. For 6M (99% digital) ..., there were No "4's" or "5's" in my log. None.

For me, the ON4KST chat page continues to be a "+"... and because of it, I had 2 of my 3 Q's on 1296. Three Q's! All three Q's were 200+ miles. I was ...ECSTATIC!!!! I am still doing my Happy Dance, even today.

Nothing broke! (In spite of operator error.)

The Final results - 103 Q's, 62 Grids, 9,300 points. I know that there was one dupe (6M digi) so the point count will come down. 6: 30/14, 2: 38/21, 1.25: 18/13, 70: 14/11, 23: 3/3,

At 10:15pm Sunday, I "hung it up". I was tired.

Yup! I accomplished my objectives.

PackRat Post Script

The things that I miss about no longer operating from K2LIM – from FN12 "Mike" "Golf":

1. The location. 2200 feet elevation; a clear view in all directions. To the West, maybe 40 miles.
2. 7 antenna systems to choose from... On each of the Lower Four bands!
3. The 4-stack Omni's
4. Only one band to worry about operating
5. Ken had to fix anything that broke. I didn't have to.
6. The 4-Stack of Omni's
7. A generator big enough to run 4 Lunar Link amplifiers running a kilowatt...simultaneously.
8. Did I mention: The 4-Stack of Omni's?

AI – W9KXI

Food for Thought

Drex, W3ICC forwarded the following opinion piece to Cheese Bits from the "VHF Contesting" email reflector. It's by Lew W7EW and is good food for thought. Well worth thinking about. Used here with Lew's permission. --W2BVH

Greetings to all Contesters,

K5QE has written up a fine article about VHF contesting and why we should leave the contest rules alone. It is clear that K5QE cares deeply about the subject. So do I. I have a different opinion on some of his assumptions so I'm sharing them with you. My opinions may be worth exactly what it costs you to read them but they may be representative of a significant number of operators.

K5QE wrote, "HF contesting is all about how you find stations not about how you work stations". I'd like him to explain more fully that statement to Ops like KL9A, N6MJ, W2SC, CT1BOH and others who are performing mutant like operating by interleaving QSOs from 2 radios. Why do they do this? I'd guess that by developing their operating skills and winning contests they are having fun. I'll get back to this idea of fun.

The ARRL did remove rules pertaining to the use of internet chat rooms and telephones during contests a few years ago. Why did they do that? It was aimed at making it easier for stations to find other stations to work and diminish slow times. After reading K5QE's note it is clear that by making VHF contesting easier it has been a great success with everybody having more fun.

Then along comes Dr. Taylor with his brilliant weak signal modes in WSJT-X. Now not only do the operators not worry about looking for stations but they really don't need to know how to operate to the same extent as a CW, SSB or RTTY operator. The FT-modes now allows minimally equipped stations to see and work real DX. It is a whole lot easier and a whole lot of fun which explains the runaway popularity of the FT-modes.

What we are experiencing is amateur radio evolution right in front of us. Operators are voting with their computer mice over the other modes because the FT-modes are easier than CQ or SSB or RTTY, and a lot of fun.

But there is a rub. There is a significant number of operators who have developed contesting skills and derive their fun from exercising those skills like the 4 stalwarts mentioned in the second paragraph. We have already seen that by combining the FT-modes in a VHF contest with CW and SSB that the pool of operators for the legacy modes is diminished. Since it is not much fun for the CW or SSB Ops they'll find other ways to enjoy their recreational time in the future such as SOTA, IOTA, golf or moving to a state where recreational cannabis is legal.

The WWROF (World Wide Radio Operators Foundation) has the correct outlook here. A few weeks ago they sponsored the first FT8/FT4 only HF contest which was well attended. The VHF contesting world needs to do the same thing, which is to delete digital modes in the current VHF contests and develop a separate FT8/FT4 only VHF contest. This would provide a pool of operators who would be having FT fun with a percentage of them becoming bitten by the contesting bug and then developing the other skills necessary to compete in CQ and SSB contests.

We do radio to exercise our radio skills which is rewarding and fun. The contests we do should emphasize those rewards and, not by their very nature, lead to conflict, malaise and unhappiness..The old VHF rules are broken by the success of the FT modes. Separate contests will rectify the situation.

73 and I remain, Lew [w7ew](#)

Here is a follow-on opinion piece by the same author, written a week or so later. --W2BVH

Greetings again to all Contesters,

This has been a great discussion. I'd like to add a few more opinions to the mix. In my perfect world of VHF contesting I'd like to see a summertime VHF contest with CW, SSB, EME and meteor scatter allowed. No FT8 or FT4.

Food for thought cont'd,,,

N5QE is right in that disallowing EME or Meteor scatter the records basis will be changed. Currently when the Es subsides (if any Es available) that is usually the time for EME and scatter. EME and scatter were originally done on legacy modes but were then made hugely easier- hence more fun by Dr. Taylors creations. My first EME was on CW with a SM7 with a lot of slow OOO and RRR being sent. I've lived through the transition to digital EME being on the DX end of FT5XO and ZL8R making EME QSOs so I get it.

Then 1 week later after the legacy only test I'd like to see a VHF FT8 and FT4 contest again with EME and meteor scatter allowed. No CW, SSB or semaphore, like the WW HF Digi contest held earlier this month.

FT8 is a better weak signal mode than CW. FT4 is maybe a tad better than CW but not by much. This is what breaks the old VHF rules. That is why in golf they don't enlarge the hole to 10" in diameter or allow croquet type putting. It would make the game easier. FT8 and FT4 has made the game easier and arguably **more fun** especially for some of the newer operators. So do we need a separate space for these easier modes or do we intermingle it with the current modes in a contest?

I was not much of a fan of FT8 or FT4 but decided to spend 24 hours doing the WWROF HF Digi contest to see what it was all about. **I had more fun than I expected to** in a different way than doing CW or SSB. I see that because FT8 is a weak signal mode an operator can put up a wire and 25 or 100 watts and make QSOs with some very good dx stations very easily. You can work some pretty rare and distant DX if you have directive gain antennas and power. That attraction feeds the popularity of the FT modes and they are not going away any time soon. There have been over 1325 log submissions for the Digi contest and this is the first time it has been run.

So golf has withstood the test of time by changing certain rules to keep up with technology. The balls can't be constructed with too much bounce and the drivers can't have too much spring in their faces so the players have to develop a certain level of skill to play well. Those professional golfers work very hard individually to develop and keep their skills sharp. I believe we need certain VHF events that allows the more skillful modes only so the CW operator has a place to practice his/her skills. We also need a space (contest) for FT8/FT4 only as contesting is good for radio overall. In FT8/FT4 all you need is a wire, radio of some kind and a computer. **No stacks or amplifiers necessary.**

Will separate VHF contests happen? I kind of doubt it. This is amateur radio evolution happening. The easier modes have a strong attraction attracting lots of users. Will those operators stay with radio and advance it? I don't know but we'll see. Will the legacy operators become disenchanted and start doing something else for recreation since the opportunities for QSOs become diminished for them? I don't know but we'll see. I suspect that the rules and contests will remain the same and the operators that do well in these combined contests will develop new skills regarding when and how much to use the FT8/FT4 and when and how much to use CW/SSB. Then another Dr. Taylor comes along with some very cool new technology and we go to the even newer undiscovered modes and the operators left will have this discussion again.

73 and I remain,
Lew [w7ew](#)

Bearing and Distance on a Phone

John, K1JEB, suggested HamGPS to me (for Android phones). Unlike other apps, it actually does bearing and distance using Grid Squares, and can store a list. Doesn't appear to send data off to the cloud. Even shows pointing, within accuracy of phone compass (not good enough for a dish)

73 [Paul W1GHZ](#)
(As seen on the Microwave reflector)

Litz Wire

For the younger people: The term litz wire originates from Litzendraht, German for "braided/stranded" wire or woven wire.

But, for the really young among us, the below definition will make the most sense to them! Everybody knows Litz wire is made up of a bunch of litzy bitty wires in a litzy bitty bundled together strand. That's how it got its name. [George K4RSV](#)
(Sent to Cheese Bits by Warren WB2ONA)

The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from October 1969. Vol. XII Nr. 10
de Bert, K3IUUV
(*author's comments in italics*)

“Our Prez Sez”. Prez Ernie, W3KKN, highlighted an interesting topic. Prefaced with the lead-in “Ever take a boy fishing?” he suggested and encouraged members to expose young people to the fun and satisfaction available in Ham Radio. “Let them listen. Show them the cheap way to get started. Help them build a project from the handbook, etc. Take a boy hamming. It’ll make you feel swell.” (*Maybe something we could take to heart again, to fill the dwindling ranks of entry hams?*)

Central States VHF Society Conference.

This society had been holding conferences for the previous 6 years. The group of about 55 members included serious VHF operators from several parts of the country. Packrat W2AXU, Jack Power had been following their reports, and decided to attend the 1969 conference which was held in Fort Collins, CO. His report detailed highlights from many of the papers and other activities at the conference. Brief extract of his notes as follows: 1) A lecture and tour at the National Center for Atmospheric Research. 2) A presentation by Motorola titled “New Concepts in Solid State Devices” covered the latest developments and device types available. At the time, Motorola was the largest producer of semiconductors (*where are they now?*).

Their newly issued data-book (over 3-inches thick) was shown. 3) A presentation by the National Bureau of Standards (NBS) described how to use the color burst reference oscillator in your home TV as a high accuracy reference “when a color program is transmitted by a network!” He suggested that 10^6 accuracy could be achieved (*before our current GPS references!*) 4) An antenna party was held at the NBS antenna range (*couldn't find a better location*). A 432 antenna design by W1HDQ (Mr. VHF, he was also the banquet speaker) achieved 13 dB gain. Oliver Swan, W6KOK discussed his new log periodic design. His 11 element (centered on 2-meters) antenna measured 15 dB gain (*impressive*). 5) A discussion on Low Noise 1296 receiving techniques included a design and schematic for a “Hot Carrier Diode balanced mixer” which provided a much better noise figure than the usual 1N21 diode mixer. A schematic and construction details were included in this Cheese Bits issue... More details on the conference are in the complete article. The grand prize at the banquet was a 15” color TV set. And who was the winner? Jack Power! (*He didn't say how he got it home on the plane.*)

Getting to Know You. This month, W3SAO, Frankie provided “When I became a Packrat.” He listed the “join” dates for 20 current members (chosen at random?)

How I Was Born, by W3CCX. This article, penned by the club namesake W3CCX, Matt Gelardi described the formation of the club. (*The details may be of interest to newer members, so I*

am repeating them here.) “One night in 1956 I was having a QSO with W3IBH on 2 meters. We had been hashing over an idea of forming a V.H.F. Radio club for quite some time. Charlie said I should get off my seat and do something about this situation. We finally decided that I should send out 11 invitations to hams we knew and invite them to a meeting at the QTH of W3FSC, Oscar Jacoby (*who lived on Horsham Rd, not far from our current meeting place*). It finally was on the way – the birth of a new club for the V.H.F. era.

On May 15, 1956 the 11 met at the QTH of W3FSC, and there and then organized the Mt. Airy V.H.F. club. The charter members were as follows:

W3IBH, Charlie Clements
W3SAO, Frankie Brick
W3FSC, Oscar Jacoby
W3CPT, Ken Harrison
W3CL, Harry Stein
W3HWV, Bill Benner
W3NKD, Vic Lees
W3RZU, Elio Colucci
W3DHH, Ed Stewart
W3HYO, Len Cicucci
W3ZEY, Russ Widger

(Next month I'll include “Where did the name ‘Packrats’ come from”, and the Minutes of that first organization meeting).

From the Book Rack.” This month, the book review net, conducted by member Paul Behrman, K3WEU reviewed the book “Know Your VOM - VTVM” written by Joseph Risse and published by Sams. \$3.50 in paperback 160 pages. The text explains the circuits and

details of the different types of these meters that are available. It included use, care and repair of the instruments. (*What would they have thought about the ubiquitous Harbor Freight versions?*)

Technical Topics. A continuation of last month’s “Notes on the Use of Electrical Indicating Instruments” described several additional types of meters and accessories. It contained this interesting comment “For highest accuracy, all instruments should be used with the pivots in a vertical plane.” This of course was referring to the D’Arsonval meter type which used a moving coil in jeweled pivots. Using it horizontally would allow friction in their pivots to affect the readings. (*Not to worry, now that everything is digital!*) Frankie added the caution “Do not apply oil to pivots or springs!”

Swap Shoppe. By W3ZRR. (*Always nostalgia.*) For sale by WA3DKZ, Norm, a Saturn 6 Halo with matching transformer. Bumper mount and chimney mount included, \$15. (*Interesting that we still use them today.*) Wanted by K3WEU, Paul, an R48 fully converted receiver. (*This was the rig we all kept under the desk to monitor the club intercom frequency on 220.*)

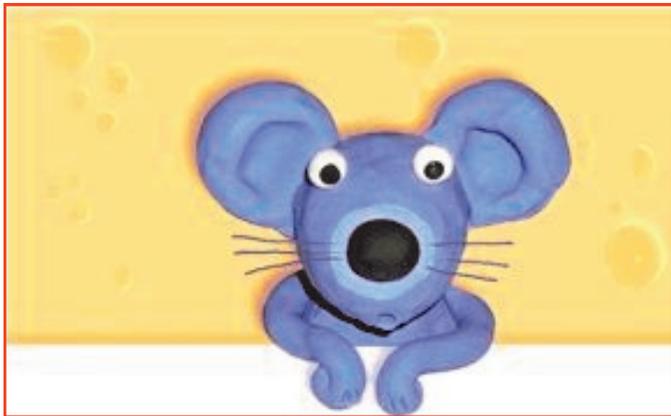
Meeting Notice. Next general meeting (10/15/1969) topic will be announced on the nets.

Back Page Ad. The back page ad from “Ham” Buergers in Willow Grove featured a CDR HAM-M rotor and control box for \$99. (*We should have held on to a few.*) Also “83” connectors, 5 for \$2.

Wayback cont'd...

Miscellany. *Postage for this copy (It was from Ernie, W3KKN) was a single 6-cent Roosevelt 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 the above items, visit our website (www.W3CCX.COM) and read the full issue scanned by K3IUUV (me), and posted on the website by W3SO, our webmaster. Remember, 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 K3IUUV
(K3IUUV@ARRL.net)



Broadcast Band DXing with a Crystal Radio

See <https://www.amateurradio.com/dxing-with-the-heathkit-cr-1-crystal-radio/>

Events

For inclusion, please direct event notices to the editor.

902 and Up Fall Sprint - Contest - October 12, 2019, 8am-2pm local. Details at <http://svhfs.org/2019FallSprintRules.pdf>

EME 50 to 1296 MHz Round 1 - Contest - October 19 - 20, 2019. See <http://www.arrl.org/eme-contest> for details.

RF Hill ARC - Hamfest - October 21, 2019. Sellersville, PA. See <http://www.rfhillarc.club/> for details.

EME 50 to 1296 MHz Round 2 - Contest - November 16 - 17, 2019. See <http://www.arrl.org/eme-contest> for details.

NJARC Fall Hamfest / Swapmeet - Hamfest - Sponsored by New Jersey Antique Radio Club. Club November 2, 2019. Sponsored by New Jersey Antique Radio Club. Club See <http://www.njarc.org> for details

Williamson's, another "thing that isn't there anymore" (now a WAWA). The Packrats, still going strong after 63 years and Cheese Bits, 62 years, **Bert K3IUUV**



Admit One 254

Mt Airy VHF Radio Club, Inc.
50th Anniversary
Dinner - Dance
Sat, Apr 1, 2006

PACK RATS

Williamson's Restaurant, 500 Blair Mill Rd at the intersection of Rte 611, Horsham, PA 215-675-5454
Displays & Cash Bar Cocktails 6:30 PM
Dinner 7:15 PM \$40

One Apollo 11 Experiment is Still Going after 50 Years!

See: <https://spectrum.ieee.org/the-institute/ieee-history/one-apollo-11-experiment-is-still-going-50-years-later>

(Forwarded to Cheese Bits by K3IUUV)

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K1RZ 222 MHz Fall Sprint Results

QSOs 39, Mults 20, Tot Dist (km) 806, Points 780

Was fun to catch up with many old friends in the 222 MHz Sprint. Ralph K8RYU EM99 is someone I have worked for years and he was quite active. And to make some new friends was fun too. Joshua KF4YFM operating near KJ4ZYB, both in EM97 were an unexpected surprise. JR KC4AAW in EM85 showed me again how powerful the FT8 mode is coming in at -24 and peaking at -20. Amazing! My best DX was Ray WA4NJP in EM84dg at 806 km's on CW. Thanks to all those who got on. Thanks for ON4KST to allow us to easily set up real time skeds. Thanks to the Southeastern VHF Society for sponsoring and making this event a fun time for all.

Kutztown Antique Radio Swapmeet Video

Here's a "sampling" video from the Antique Radio meet held at Renninger's in Kutztown. The link is courtesy of Ted, W3SYN. An annual affair, this is probably the largest Antique Radio gathering in the country. If you're an aficionado, you'll enjoy browsing down memory lane, looking at some of the pristine antique pieces on display for sale. Feast your eyes on the Juke Box. A magnificent piece. And the Zenith Transoceanic radio looks like the one in my basement. Enjoy (I did), **Bert, K3IUV**

<https://www.youtube.com/watch?v=ic4dD0A0ogY>

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Hector, W2NPR sent this to some of us. It is quite view-worthy. It is a good video filmed during the false missile alert in Hawaii and how ham radio is a not only a hobby but a public service. <https://www.youtube.com/watch?v=dO09aMGMizM>
73 Barry K2MF

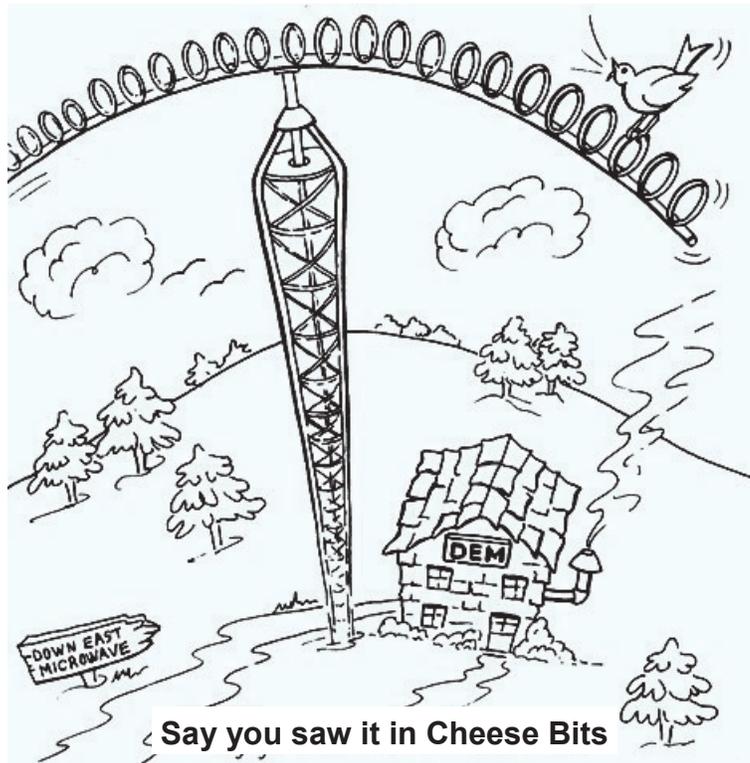
(Sent to Cheese Bits by Warren WB2ONA)

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