



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LIX

May 2018

Number 5

PREZ SEZ:

Just an important word or two about the June contest. We plan to go to Camelback again this year. But we don't know if the Camelback site will be available because of road reconstruction. The exact dates of road work are not known as of today. So the BOD and major contributors to the June contest efforts have come up with a Plan B if needed.

Plan B would be at the QTH of Len N3NGE. We would use Len's equipment and towers with the W3CCX call. Len has trained operators and would ask that other Packrats operate from home and boost the club score. He cannot provide for many visitors due to limited space. Len requested that only enough operators come to his site to operate the available equipment and that the list of operators be set in advance. We would also use Assistance to the greatest degree possible, to increase total number of contacts.

We will not know for sure if we're going to Camelback or Len's till the last week in May. Once we know for sure the information will be published on the Packrat Forum, the Packrat web site HOME page and also available from any of the BOD members. This year more than ever we need every Packrat possible to participate in the June Contest in any way they can.

In the last few months we have welcomed

several new and younger Packrats to the club. We also joke that the average age of the club has decreased. This is a good thing. This trend needs to continue if we are to remain one of the premier VHF/UHF/Microwave clubs in the country. I would ask that each of us look around at the HAMS we know. Many of us belong to more than one radio club. Try to single out that enthusiastic VHFer that may want to get involved in a club like ours. Keep in mind our Constitution membership guidelines "... Membership shall be confined to those radio amateurs who are active on and have a genuine interest in the VHF amateur radio bands ... " This means you may have to identify a good candidate and cultivate him or her for a year or more. You may have to be a mentor, help them find an antenna or two along with a transverter and get them on the air during a contest. The Sprints, being only four hours in length, would be a great introduction to VHF contesting. We're not looking for people who just want to join another club. We are looking for people who enjoy what we do and would like to join us and contribute to the great club we are.

Don't forget the White Elephant Sale at Bruce's this July 19th.

Also coming up is the Packrat Picnic at Michael's QTH August 11th.

September will be the Packrat Mid Atlantic Conference at the Holiday Inn just outside the PARX Casino. Dates are the 28th, 29th and 30th. Rick K1DS is still looking for speakers. Talks

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Pack Rat Web Site: <http://www.packratvhf.com>

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ 23 Morning Glory Circle, Mullica Hill, NJ 08062
(609) 440-2916 bobw2sj@gmail.com

EDITOR:

Lenny Wintfeld W2BVH 709 Lincoln Av., Cranford NJ 07016
(908)-272-0559 lennyw@comcast.net

CLUB TREASURER:

Dave Mascaro, W3KM 1603 Mink Road Ottsville, PA 18942
(215)-795-2648 w3km@verizon.net

TRUSTEE OF CLUB CALL - W3CCX

Mike Gullo WB2RVX
(609)-743-6643 MGullo3@comcast.net

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz (PL 136.5) Hilltown, PA

OFFICERS 2017-2018

PRESIDENT KA3WXV, George Altemus ka3wxv@yahoo.com
VICE PRES: WA3DRC, Ed Finn edfinn11@gmail.com
CORR. SEC: WA3EHD Jim Antonacci jjantonacci@verizon.net
REC SEC: KB1JEY Michael Davis kb1jey@arrl.net
TREAS: W3KM Dave Mascaro w3km@verizon.net

DIRECTORS:

K3JJZ Elliott Weisman (2019) k3jjz@aol.com
K0BAK Pete Kobak (2019) rxr978-vhf@yahoo.com
KB3MTW Michelle London (2018) mal61@comcast.net
W3SZ Roger Rehr (2018) w3sz73@gmail.com
Honorary Director K3TUF Phil Theis phil@k3tuf.com

COMMITTEE CHAIRMEN

January Contest Bill K3EGE billk3ege@gmail.com
Bob W2SJ bobw2sj@gmail.com
Phil K3TUF phil@k3tuf.com
June Contest: CoChairs
VHF Conference: Rick K1DS rick1ds@hotmail.com
Guy WA3JZN wa3jzn@gmail.com
Awards Chairman Joe WA3SRU wa3sru@verizon.net
Quartermaster: Bert K3IUV bsoltoff@comcast.net
Membership Chairmen: Rick K1DS rick1ds@hotmail.com
Griff NE3I signalnaut@aol.com
Michael KB1JEY kb1jey@arrl.net

PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA
50.080 144.300 222.062 432.290 903.072 1296.264 **2304.043**
3456.200 **5760.195** 10,368.034 MHz (as of 1/17, red = off the air)

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

can be anywhere from 15 to 50 minutes. Friday night is the Hospitality suite, Saturday will be the Presentations followed by the Banquet that evening. Finally, Sunday morning is the Mini Hamfest in the parking lot – weather permitting.



With the June contest around the corner, and W3CCX needing every possible contact, it's time to fix all that stuff that broke in the January contest! From what I heard most Packrats have fixed the antenna damage from the winter storms. I hope to hear as many Packrats as possible this June.

Bottom line, have some fun, learn more. Build something.

73, George KA3WXV

APRIL MEETING

(AWARDS / ARRL NIGHT)

Packrats 2018 Awards

Packrat of the Year - Bob Fischer - W2SJ

Packrat of the Year - Bill Shaw - K3EGE

Mario Award - Roger Rehr - W3SZ

Special Recognition - Stan Smith - K3IPM

Rover Recognition Award 2017 – Steven L. Clark AG4V/R

Contest Awards

1st Place - Single Op High Power – K1RZ – Dave Petke – 316,470

2nd Place - Single Op High Power – K3TUF – Phil Theis – 117,762

1st Place – Single Op Low Power – N3RG – Ray Golley – 115,062

2nd Place – Single Op Low Power– WA3GFZ – Paul Sokoloff – 50,386

1st Place Multi Op – N3NGE - Len Martin – 490,154 With K9PW, WA3WUL, K3EGE, N3EXA, NE3I

1ST Place Rover – NN3Q/R – Russ Lamm – 57,525 With K3WGR – Al Zimmerman

Most Improved Station & Score - Bob Fischer - W2SJ from 14,945 to 50,556

Improvements include the addition of new antennas, digital modes & station automation

Home Brew Contest

Most Ambitious – Rover Project K0BAK – Pete Kobak

Best Technical – 6 Band Transverter & Beacon WA3GFZ – Paul Sokoloff

Most Practical – Microwave Preamp Switchbox N3RG – Ray Golley

Special Certificates

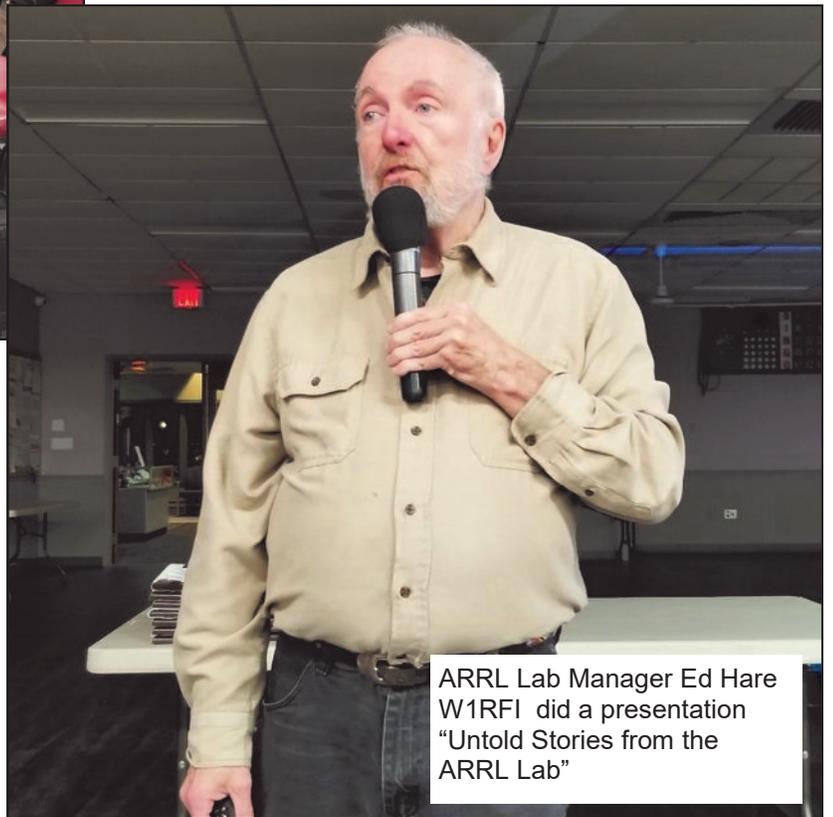
Packrats Worked and Packrat QSO's

Single Op-High Power WA3DRC Ed Finn 51 Worked 225 QSO's

Single Op-Low WA3GFZ Paul Sokoloff 45 Worked 238 QSO's

Rover NN3Q/R - - 28 Worked 231 QSO's Ops NN3Q and K3WGR

Multi-Op N3NGE 58 Worked 336 QSO's - Ops N3NGE, K9PW, WA3WUL, K3EGE, N3EXA, NE3I



ARRL Lab Manager Ed Hare W1RFI did a presentation "Untold Stories from the ARRL Lab"



Tnx K3JJZ
for Pix &
WA3SRU for
Awards Info



The Mount Airy VHF Radio Club, Inc.

Presented To
Bill Shaw
K3EGE

In recognition and appreciation of your energy and activity as a coordinator of the Rover VHF contest schedules and communication, enabling maximal success in participation and scoring.

PACKRAT OF THE YEAR
2018



The Mount Airy VHF Radio Club, Inc.

Presented To
Bob Fischer
W2SJ

In recognition and appreciation of your dedicated leadership resulting in our club's VHF contest continued success and for your ongoing participation and service to the Board of Directors.

PACKRAT OF THE YEAR
2018



The Mount Airy VHF Radio Club, Inc.

Presented To
Roger Rehr
W3SZ

In recognition and appreciation of your unique contributions to the growth and success of the VHF contesting activity, developing the Station Automation VHF Conference seminar, and software development and programming of the Packrat Finder.

MARIO AWARD
2018



The Mount Airy VHF Radio Club, Inc.

Presented To
Stan Smith
K3IPM

We hereby recognize your outstanding dedication in support of the Mt. Airy VHF Radio Club's aggregate ARRL January VHF Sweepstakes scores for over 50 years. Your tireless efforts on VHF, UHF and microwave bands through 10 GHz have added thousands of contacts and millions of points to the club, and gives encouragement to others to participate. The Packrat membership greatly appreciates all of your contributions.

SPECIAL RECOGNITION
2018

Pileups and SSB on ~~20 Meters~~ 1296 EME....

During the weekend of April 21, 2018, I had the privilege and fun of operating a portion of the 1296 MHz EME DUBUS contest at Al Katz's (K2UYH) EME station. I was there during the activity's first opening into Europe, beginning Saturday at around 2:30 PM.

As an EME CW contest one could call it anything but a weak signal event. Many times during the contest, my CQ was answered with pileups of five stations or more, all coming through at **559** or better. As with pileups on 20 meters a QRZ was sometimes required to allow second or third chances to pick out the numerous stations simultaneously answering K2UYH's CQ.

Still, unlike most HF contests civility prevailed.

Though no information beyond call sign and signal reports were necessary to complete a contact, EME CW practice required greeting or acknowledging the far end operator by name. 73s really did mean 73s. QSO run rate was up to around once every two minutes.

By 6:00 PM activity had died down enough that VE6BGT, Skip Macaulay, began calling CQ on SSB outside of the regular contest activity. Al quickly made a QSO with him with signal reports of 5X5 being exchanged both ways. To follow on SSB was EA8DBM, Aleksandr Maksimov, of the Canary Islands who first QSO'd VE6BGT, followed by us at K2UYH.

So 1296 EME during the DUBUS turned out to be very much like 20 meters indeed: **pileups and SSB!**



NE2U at K2UYH EME Station

73, George NE2U



VE6BGT Dish - Big dishes at both ends of an EME QSO make for armchair SSB copy off the moon.

VE6BGT Skip's 21 foot dish

On The Bands

By Jerome Byrd – K3GNC

Tropo Scatterings:

Digital modes on the VHF and up bands:

“It’s a beautiful day in the neighborhood, it’s a beautiful day in the neighborhood won’t you be my neighbor?” Well when it comes to the topic of digital modes on the VHF and up bands, there are two distinct Mr. Rogers – the PBS version and the Saturday Night Live Eddie Murphy version. The PBS series promises wholesome enrichment for children everywhere. The Eddie Murphy version .. not so much. Do the digital modes provide wholesome enrichment or .. not so much?

The dominant digital modes used by vhf/uhf/mw enthusiasts are as follows: EME and sometimes long haul brute force tropo JT65A for 50 MHz, JT65B for 144-432, JT65C for 1296 and up, MSK144 for meteors on 50 MHz and up, and then there is FT8! EMEers by-and-large have compromised and will use both traditional cw/ssb and digital.

High speed cw and even ssb are beginning to go the way of the Dodo bird in favor of MSK144 for meteor scatter contacts. This I am sure bothers more than a few.

I think the main annoyance with MSK-144 and FT8 is the “total computer control of the contact”. The JT65 modes require visual identification of desired signals and mandatory operator control of the exchange sequence. When used for tropo the JT65 modes are a tedious way to make a qso and this mode is usually only used in lieu of cw, if one or both parties don’t know cw and both have JT65 capability. MSK144 and FT8 lend themselves to unlawful operating techniques. You can set up your system to make a contact and not be present at the station or connected via remote control. This unattended contact ability probably has caused the greatest resentment. Many will use the AM vs. SSB wars in the late 50s and early 60s as a previous example of new technology being resented in favor of the tried and true. That, however, is not a valid comparison to the MSK144 and FT8 resentment. Many have accepted both modes and look forward to even more powerful modes. The problem is the “automatic” feature. Why is it there? Why shouldn’t an operator have to visually see responses sent to them and choose the proper reply and send acknowledgements (as is done with JT65)? Digital modes are here to stay and probably so are the automatic features. It should be interesting to see how 6 meters fares in terms of SSB vs. FT8 when the band is wide open this spring and summer for hours on end. Stay tuned..

Station Capability: ** Please edit your QRZ.COM page to at least list your station rundown (see AA2UK, K3TUF, WB2RVX, ETC. entries on QRZ.COM)

Nets and Schedules: The following is a rundown of the nets and group meetings in the ‘local area’ (<= 250 miles, only nets that don’t conflict with the Packrats nets are shown).

Mondays: 2130 local – 1296.110 (group schedule with WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC, W2BVH and others. All are welcomed.

Tuesday: 2000 local – “Mud-Toads Net”, KD8UD FM17UV net control. 144.175, all are welcomed.

Wednesday: 2030 local - 432,150 – group schedule, WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC and others. All are welcomed.

Thursday: 2030 local - 144.250 – N.E.W.S club net, W1COT FN31ST net control. All are welcomed

Saturday: 144.205 – 2130 local - Chesapeake Net, W3BFC net control. All are welcomed.

Sunday: 1030 local – 144.250, Sunday Morning Memorial Net, Bill AA2TT FN30BR net control, all are

... On the Bands cont'd

welcomed, 2030 - - 432,150 – group schedule, WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC and others. All are welcomed.

The Luna-tic Fringe:

The fair haired band for EME is becoming 1296 mhz. People are even migrating from 144 MHz, and 432 MHz is becoming a wasteland. Significant success on 1296 requires a dish. Most people are circular polarized therefore yagi stations will always be 3 db down and losses involved with stacking mount up quickly when building large arrays. I hope that newcomers, especially those with little space or little inclination or expertise to build a dish based station, consider 432. Yes activity is down, but that is from the lack of new blood. Most dish owners can still work 432 whether they are active there or not. If an influx of new 432 operators appears, there will be a feeding frenzy and activity on 432 will move back to where it was “in the good old days”. Basically people move to a new band when they think they have worked out their current band. Two meters has new people appearing all the time, that it why it is the most popular band. The 432 band is much quieter than 144 and fairly impressive systems can be erected within a fairly small space. More later.

EME Tidbits – For the first 6 hours of a moon-pass Europeans stations are available. The next 3 hours are limited to NA and SA. The final 3 hours feature the Pacific islands, AU, ZL, Japan and the far east at the very tail end of moonset.

Until next time please stay/get radioactive! **73, K3GNC**

Most of the Packrat Contingent at the April N.E.W.S Conference



PRODUCT REVIEW: THE QRP LABS QCX HF TRANSCEIVER

By John W. Thompson MD K3MD

Originally Published in "QRP Quarterly". Reproduced with the author's permission.

During one of my many ragchew QSO's with K8CIT, he began raving about the new QCX QRP transceiver kit. I have a very sketchy history with QRP kits, with some of my successes being the SST-40, RockMite I and II, Sierra, Glow Bug, and WA3RNC VXO transmitter. In addition, I designed and built a 6AQ5 QRP rig "Junkbox QRP", the design for which was published in *CQ* magazine. My list of failures is almost equally long (although I will not enumerate it here). The QCX is a British kit by Hans G0UPL, who has been interviewed by *QSO Today*, and who has had a table at FDIM. [The Four Days In May QRP enthusiasts gathering at Dayton --Ed.].

The QCX kit is only one of a wide selection of kits available from QRP Labs.

Arthur K8CIT had indicated that the building time for this unit was 12 hours, so, when it arrived (promptly, shipped from within the USA), I very painstakingly assembled it. The assembly manual is extremely easy to follow, and is 144 pages long. I later printed out the latter part of the manual, in which circuit design parameters and operating instructions are contained. I must confess I never do a part inventory, so when the instructions told me to do that, I did not. However, there were no missing parts at all.

Assembly is very straightforward, starting with IC's, capacitors, resistors, toroids, then the larger parts.

When assembling this kit, I did inspections with a magnifying loupe every 30 min or so. The commonest problem with these kits, is, of course, solder bridges and cold solder joints, and secondly, non-continuous toroid coil soldering. I very carefully inspected my soldering joints. Of course, a "helping hands" jig is necessary for putting this kit together. In addition, I would recommend a magnifying pair of glasses, available from ALL Electronics (www.allelectronics.com) or Moyer's Electronics (570-286-6707). A very clean work desk is also needed, and I would recommend a QRP wattmeter and dummy load, although the built-in wattmeter in the QCX can be used, and a dummy load is available from QRP labs. I use two 2-watt carbon-film 24-ohm resistors in series... not recommended, but they work.

My initial build time was about 20 hours, since I checked and double-checked everything. When powered up, the display bias control setting was easy, and the procedure for tuning the receiver input toroid and I/Q balance, high and low frequency phase settings (with which there is some interaction) was also easy. However, my unit's output was only 200mw, and, reading the manual, I found that the output filter toroids were most likely too great in inductance. In retrospect, there might possibly have been a short in the output BNC connector, but I have not checked that yet. I rewound two of the output toroids, and the output went to 400 mw. After rewinding the third, there must have been a discontinuity in the toroid soldering, because RF got into the display, and the display went blank. Also, there was some other build error, because the 5V regulator was overheating, although the LED on the display was lighting.

So, for another \$49, I ordered a second one. The second time around was much easier than the first. It took me around 8 hours. Initially, I had trouble adjusting the I/Q balance, so I started going through, checking every resistor and capacitor for wiring errors, but, it turns out, you need to advance the volume control above its lowest setting to make this adjustment. Once that was done, the adjustment is easy. It

does pay to read this extensive manual... in the troubleshooting section, this error is clearly delineated. For the second build, I used my MFJ antenna analyzer to carefully adjust the inductance of the toroids in the output low pass filter. I found that, for two of them, the required inductance was obtained by using 3 less turns than the instruction manual stated!

The second part of the manual includes a stage-by stage description of the DDS circuit and the direct-conversion stage, as well as the rest of the circuitry. It makes excellent reading, and, as you all know, the days of the superheterodyne are numbered. This is the first circuit I have built that had an actually-functioning class E final amplifier stage. There is extensive documentation on the output stage and various signal traces associated with it. The transceiver can be operated at up to 16 volts, at which stage you will get 7 to 10 watts out... just consult the pertinent graph in the manual.

The unit has a rudimentary S meter, a low battery indicator (adjustable), and as well, a CW decoder for receive and transmit. Recording the outgoing messages (up to 12) is a snap. WSPR beacon use is supported as well.

Upon further testing I did find that the receiver, although it has very good intermodulation characteristics, is not quite "single signal." There is a second heterodyne when tuning around signals, around 20 dB down. This appeared despite a successful adjustment of the I/Q balance and hi/low phase levels with the built-in alignment tools. After building a unit for 20M, with the proper I/Q adjustment, and going back and readjusting the 40M unit, this problem no longer appears.

The built-in CW decoder for both transmit and receive works extremely well. It has the provision to turn it off for receive, which some CW operators prefer if they wish to copy by ear rather than on the screen.

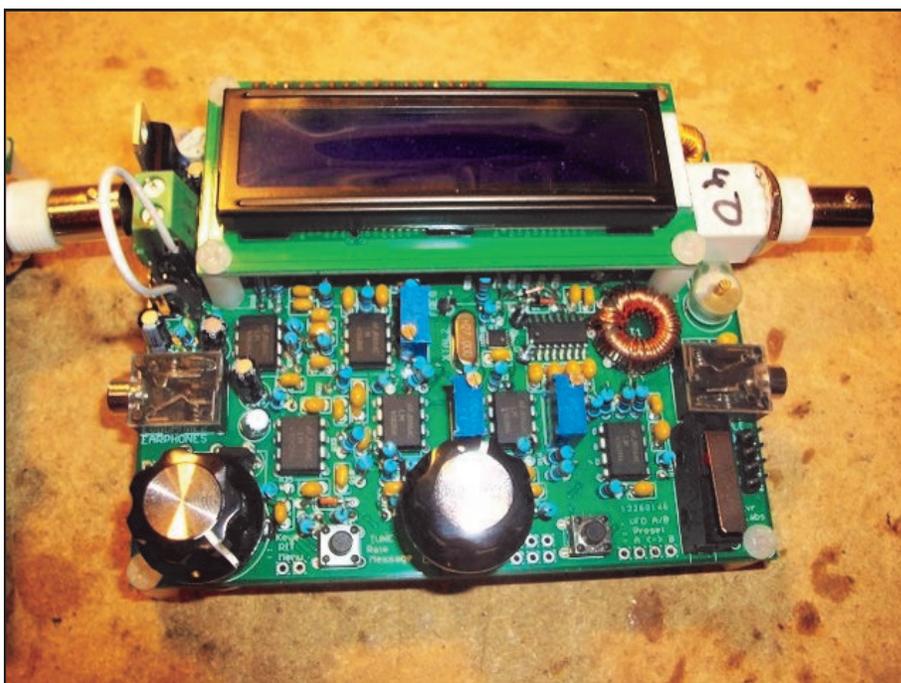
There is documentation on how to use a GPS device (which is also supplied as a QRP labs kit) to give the proper reference signal to calibrate the transceiver. This is well above my pay grade, although reading the group comments on groups.io indicates that it can be done successfully.

If you are going to enclose the unit, there are clear instructions on how to extend the wires to the switches and controls to accomplish this. You must decide to do this prior to assembling the appropriate stages, however, as unsoldering these devices may be difficult to impossible.

The unit has a built-in DVM, which I must confess, I did not use, having around 3 or 4 in the shack/workbench already, as well as 4 calibrated vacuum tube voltmeters.

The unit even includes a noise blander!

In a short product review such as this, the extent of wonderfulness of this kit (available for 80, 60, 40, 20, 17, or 15 meters) cannot be fully emphasized. But, if you are feeling brave, plunk down your \$49 and you will be pleased with the result. Or, just go to www.qrp-labs.com/qcx, and, upon reading the assembly and operating manual, you will convince yourself to purchase this unit.



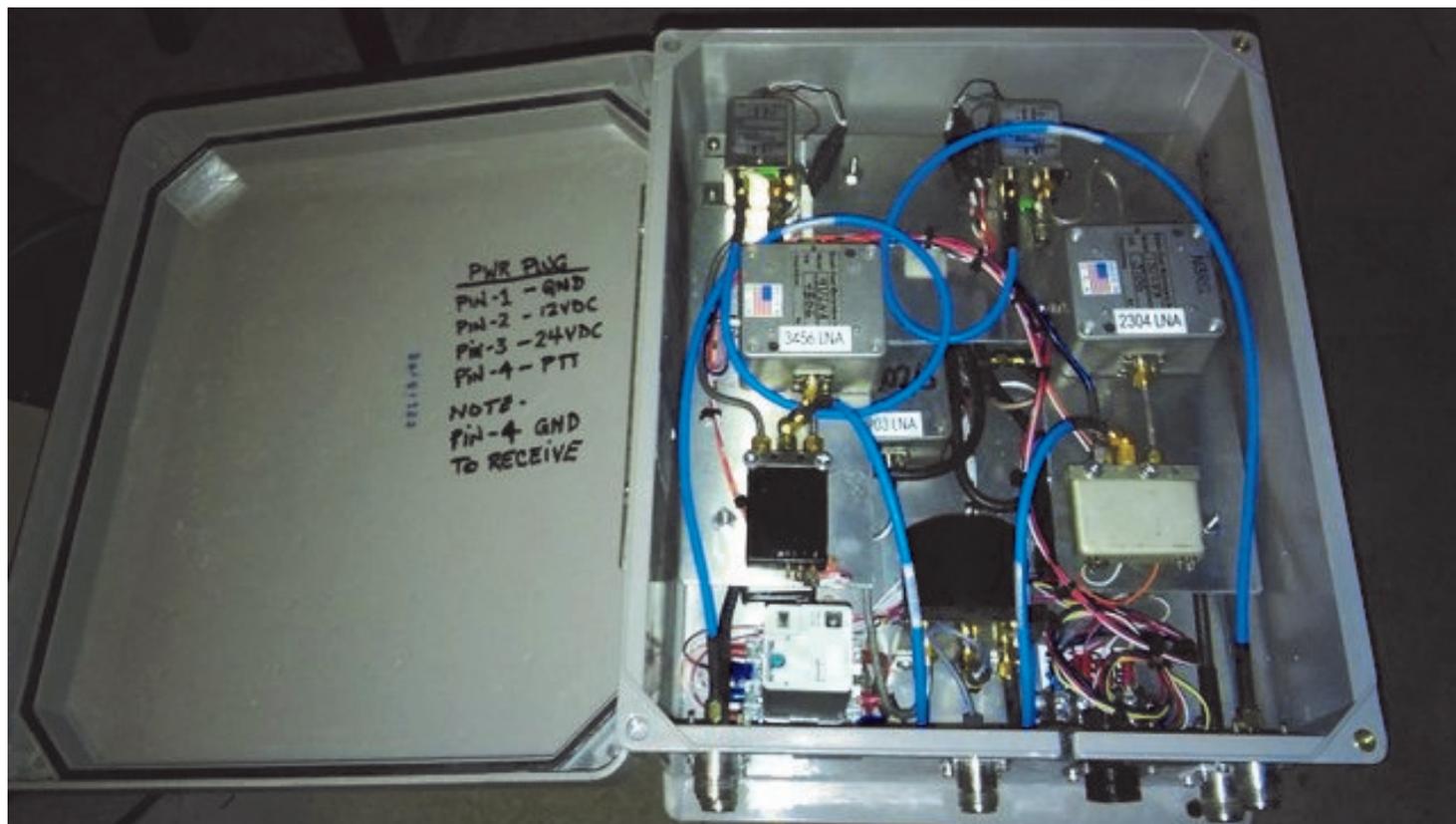
Progress on Microwave LNA Remote Selector at N3RG

Len,

Thanks for getting Cheese Bits out the door! I really look forward to it each month. You may recall from home brew night at the meeting I brought the beginning of my 4 band LNA box. It will select one of 4 LNA's and antennas for 902 through 3456 and it also will bypass the selected LNA during transmit. So one coax from the shack is used on 4 LNA's and 4 antennas. Since you're one of the weak signals I'm trying to improve on I thought you'd want a look at the finished product. It's four of the same setup from 902 through 3456. I currently have a Relcomm 4 port switch in a box up on the "H" frame to select 1 of 4 antennas, but there are no LNA's up there. So rather than have two boxes up there, I incorporated the Relcomm switch in the new LNA box. When the time comes I'll just change out the boxes and connect a new control cable. Each band has it's own transfer relay and SMA relay to do the switching and all are controlled by just one sequencer down in the shack. I've been using one sequencer for the last year or so and haven't had any problems.

The power and PTT signal are all coming up via a 5 conductor cable. The PTT signal comes from the sequencer and is active low to receive. If power is lost the antennas are connected directly to the down feed line to the shack which is 1 1/4" hard line. I supply 12vdc for the relay and LNAs, 24vdc for the SMA and transfer switches, dc ground, and PTT signal through the five conductor cable. The coax jumpers inside the box, were all scrounged off the Mario Table or picked up at conferences. What is not shown is the eight conductor control cable for the Relcomm four port switch. I simply left it separate because it was in use with the existing four port switch (which only selects antennas, not LNA's).

PS I can't wait to get the box in service so I can hear you on the mw bands.



MUD 2018 Call for Papers

Microwave Update 2018
Dayton, Ohio, October 11 – 14, 2018
Holiday Inn, Fairborn, Ohio
www.microwaveupdate.org

Microwave Update (MUD) is an international conference dedicated to microwave equipment design, construction, and operation. It is focused on, but not limited to, amateur radio on the microwave bands. The Midwest VHF/UHF Society is pleased to host this year's event. The conference will be held at the Holiday Inn, 2800 Presidential Drive, Fairborn, Ohio 45324.

Call for Presentations and Papers: The program committee is calling for papers and presentations on the technical and operational aspects of microwave amateur radio communications. Tell us about your latest project, design or operating adventures. Please e-mail your proposals, questions, and submissions to John Ackermann, N8UR, at jra@febo.com. Don't wait until the beginning of September to let us know what you're planning!

Presentations selected for the technical program may be given in person or by proxy. Please send an abstract and expected duration no later than August 25, 2018 so that we can determine and announce the program agenda the following week. Ideally, send your draft presentation by the same date. We encourage presenters to submit a companion paper for publication in the proceedings book. This paper would ideally be text based and expand on the presentation slides, but a simple copy of the slides is also okay. Either way, this material must be received no later than September 1, 2018 to be included in the book. Additional material (presentation slides, schematics, source code, more text, background info, etc.) to be included on the proceedings CD must arrive no later than September 25, 2018. All conference attendees will receive a copy of the book and CD.

Full details, including suggested topics, paper guidelines, schedule, and hotel information can be found on the MUD website:
www.microwaveupdate.org.

Mid-Atlantic States VHF Conference Call for Papers

The 2018 Mid-Atlantic States VHF Conference Sept 28-30 sponsored by the Packrats will again be held at the Holiday Inn Bensalem-Philadelphia.

We are accepting papers and presentations on any topics related to VHF and above. Please contact rick1ds@hotmail.com with your topic or title.

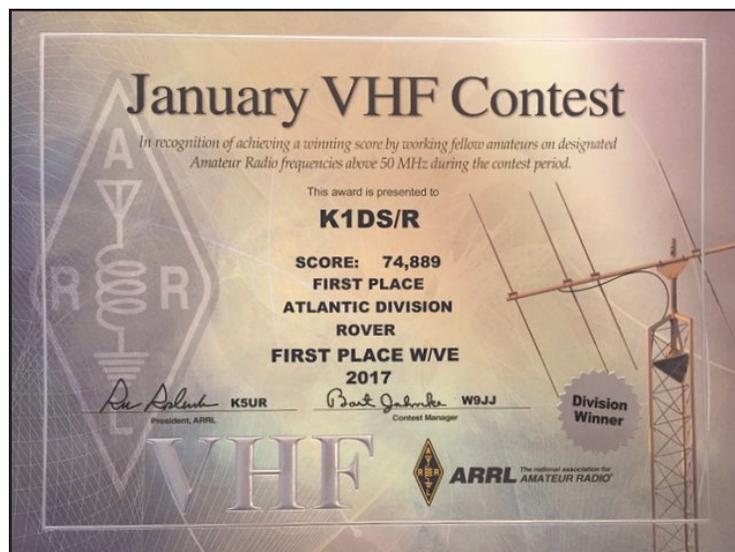
Conference features Hospitality, Table-top selling, Papers and Presentations, Technical testing room, Banquet, Door Prizes, Outdoor mini-tailgate-fleamarket.

Holiday Inn Bensalem-Philadelphia conference rate is \$105 +tax mention "VHF Conference." Rate includes buffet breakfast for 2 room occupants.

EMCOMM on NBC

Here's a nice report made for the general public on ham radio **EMCOMM**. <https://www.youtube.com/watch?v=dO09aMGMizM&feature=youtu.be> Gives you an idea of how hams are (sometimes) viewed by the general media. Worth a look.

Tnx to Grant NQ5T for the URL



2018 SPRING SPRINTS: RESULTS AND COMMENTS

2 Meters:

I had a great time. I thought activity was excellent and conditions were good to the NW, average everywhere else. I had 89 Q's and 25 grids, I thought I had 24 grids but after reviewing the log I ended up with 25 grids. The western NY area was well represented. KA2LIM/R was very loud from both his locations. I didn't use MSK144 so I made no MS contacts. I made about 10 local contacts using FT8. I found CW to be the most effective means of communications. There's been considerable debate about the 2 meter FT8 calling frequency. It's supposed to be .174 but it's my understanding many have a strong birdie there so many ops used .175. I can't really use either effectively because of birdies and local noise. I have used FT8 for extended contacts by co-ordination. I usually use 144.155 to 144.160.

--Bill, AA2UK

Everything worked OK...EXCEPT me! Pooped out around 9 and stuck around for another 1/2 hour. Lots of activity! Probably heard as many stations I missed as the ones I worked. Got good reports from everyone I worked. 41 Q's 13 Grids. --Joe, KC2TN

Worked the 2 Meter Sprint from N3NGE Band seemed in good shape. Early on to the NE then later to the NW and W. Best NE was K1DY FN54. Best NW was a couple of FN03's. Best West was W8BYA, EN70. Best South was a couple of FM07's and 17's. Wound up with 104 Q's and 29 grids. ks to all the Packrats and Rovers who got on. --Bill K3EGE

I worked 57 Q's and 21 grids and was on just about the entire time. Lots of activity. Worked KA2LIM/R in FN11 real strong, but never heard him in FN12 or others working him. Guess I was on the wrong frequency at the wrong time. Highlights were K1HC in FN53, VE3ZV in EN92, AF1T in FN43, VE3YCU in FN02, & AC2BL in FN23. Worked FM09, 17,18, & 19. Missed KD4AA, heard an FM27 briefly, but did not hear any FM28, FM06, or FM07. Had a great time! --Bob W2SJ

Worked the first hour and a half of the 2M sprint. Conditions were up and down but definitely seemed above normal. Best DX was KA1ZE/3, in FN01 at 488 mi. Stan peaked S-5 at one point! I am only running 50 watts! After a sked at 8 with Bill at N3NGE that resulted in just weak bits and pieces, he responded to my CQ around 8:15 and was S-5. We completed the QSO on SSB, about a 450mile path! That's how condx were. 16 Q's, 11 grids. Thanks to all who got on! --Bill, K1DY

I had a good time just not too much of it in the seat this time! Conditions were average here and I managed to work a few nice distances like N1GC, VA3ELE/R, KA2LIM/R, AF1T, K1HC, K8RYU, K8TQK, VE34ZV, and VE3YCU. K1HC had the longest distance from FN53. There still seems to be some confusion as to the mode to run FT8. I saw some running contest mode and some running reports so I guess that still has to be worked on. 47 Q s 23 Grids.

I'll try to put more time into the 222 sprint next week. -- Ray N3RG

Did 21 Q's in 6 Grids. Could have done much better since condx were good but I now have a serious problem with my K2 IF rig for 2M! Coming out of transmit, the rig audio is down 4-5 s-units. It's corrected by stepping through the USB IF bandwidth settings. Imagine having to do that for every over of every QSO! And on top of that, when I broke off to do my regular 9:30 Q's with WZ1V, K1PXE etc, on 1296, I found the 1296 rig running too much supply current!! When it rains it pours. --Lenny W2BVH

...Sprints cont'd

My score consisted of 19 Qs / 6 grids 100w --**Steve W1SMS**

222 MHz:

38 Q's 17 Grids. Condx average to poor. Had a lot of garbage; reminded me of the channel 12 stuff we used to deal with. Very strange interference that masked some stations then it would go away most of the time long enough to complete the Q.--**Bill, AA2UK**

25 Q's 10 Grids. Not the same conditions as the 2M Sprint. Band seemed extremely noisy in most directions. --**Bob W2SJ**

Well, I didn't get home until 9:30. THAT didn't help. Conditions were not as good as 2M but I did hear FN20, FN11 as well as grids closer. My 50 watts seemed a bit on the light side this time out, hah! Had a near miss with N2NT in FN20. Seems like conditions got worse as time went on and I finally pulled the plug at 10:20. 6 Q's, 3 Grids. --**Bill, K1DY**

The sprint was on my anniversary. Got back from dinner around 9pm and got on 222 soon after. The band seemed dead when I first turned things on, except for K1TEO, but somehow I pulled out 12 Q's in 6 grids over around an hour's time. Furthest: K1OR FN42. Propagation seemed well below average with high band noise. Still have issues to deal with on the I.F. rig (K2). I don't relish debugging that!
--**Lenny W2BVH**

I operated for 2 hours and made 25 Qs and 12 grids. Conditions were not good, with deep fading QSB and lots of noise toward various directions. Best DX was VA3ST and NG4C. --**Dave W3KM**

11 Q's 5 Grids --**Vitaly KC3ACQ**

432 MHz:

Rainy night and pretty bad conditions. I didn't get my new KW amp running in time so was running 50 watts. 9 QSO's in 5 grids (FN31, FN42, FN53, FN22, FN10 - [that was also 5 states]). Best DX was K3TUF in FN10 (470 miles!!). Phil came up to S3 on CW which sort of surprised me (actually that the same happened on HIS end is what REALLY surprised me!). Hardest contact was K1HC in my own state (FN53) but his antenna was fixed SW. Thanks to all who got on and the sponsors. --**Bill, K1DY**

Thanks to all that worked me. Conditions seemed worse than the 222 Sprint. Deep QSB and the same noise toward the NE. 19 QSOs and 8 grids. Copied VE3DS (Dana did send QRZ W3) and KA2LIM/P quite well on CW, but could not work them with my 75W. --**Dave W3KM**

44 Q's and 23 Grids. I had a great time. I did very well even though some of the western stations were weak (like Phil K3TUF and K3TLP in EN91). My antennas are very low but 650-700 watts and an attic LNA really help. Bill, AA2UK--**Bill, AA2UK**

30 Q's, 12 Grids. Best distance K1HC-FN53, ME on SSB followed by VE3ZV-EN92, Ontario on CW. Can't emphasize enough the importance of CW for extra grids in these Sprint contests! Yes, and I need CW practice also! --**Bob W2SJ**

The QSB was nasty at times, as we often get some layering over Lake Ontario that sometimes enhances propagation and at other times kills it. I've noticed this on the LP UHF TV signals from Buffalo, and on Broadcast FM over the years. I do have a good shot down into the FM grids from here as evidenced by K1RZ being in here up through 1296, and of course lots of skeds back in the before time, (before grids) on 144 with guys like Joe W2EIF, Tommy W2UK and many others on 144. --**Dana VE3DS**

...Sprints cont'd

432 MHz cont'd:

Worked 16 Q's in 6 Grids. Condx seemed poor with noise and qsb. Even with my low 12 el yagi and 12 watts I usually do better than this. Wx: drizzle probably had something to do with it. Per 3830 Scores 12 Packrats reported results. --**Lenny W2BVH**

Had fun with my 85 watts out and home brew 33 el K1FO antenna. I worked several Canadian stations including VA3ELE, Peter from four locations. That's a first for me! Also, VE3YCU, VA3ST, VE3DS, VE3ZV and my best dx was K1HC in FN53. I didn't hear as many Packrats on 432mhz as there were on in the 2 meter sprint but that's to be expected. 32 Q's 15 Grids. --**Ray N3RG**

Thanks to all who got on in the 2018 432 MHz Sprint. Conditions were not too good this year what with rain just stopping by sprint start time, and many to the north and north east reporting still experiencing heavy rain. Conditions always down with this type weather. Many thanks to Rovers W2RMA/R (2 grids), K2EZ/R (four grids) and VA3ELE/R (four grids), in spite of the rain. Thanks to Ken KU8Y for QSYing to FT8 freq 432.174 for relatively easy completion at 821 km's, even though could not hear his signal, and waterfall trace was extremely light. And similarly to Mike KF8MY for quick FT8 exchange from EN84cb at 760 km's. Thanks to CSVHFS for sponsoring these activities, bringing us all together for these sprints. 53 Q's 25 Grids. --**Dave K1RZ**

Nice sprint, thanks to the sponsors. This is my favorite sprint. A couple of rovers braved the rain and went out. VA3ELE, K2EZ and W2RMA Don't think conditions were down, in fact heard W4NUS stronger than usual. Most long contacts were just under the 500 mile mark. 54 Q's 27 Grids. --**Phil K3TUF**

I decided to install a 450A rotor inside a 6 ft step ladder along with a telescoping painters pole going through the hole of top shelf as a bearing. Lashed the ladder to the patio railing with tie wraps and raised the K1FO rover yagi to approximately 27 ft. I was amazed to be able to work several VE3s and K1HC in Maine fairly easily from a relatively low location. Once again, K2EZ/R came through with the only FN21 multiplier. I didn't even think about trying FT8 on 432, maybe next time. 31 Q's 12 Grids --**Peter WW2Y**

5 QSO with VE3, not bad. 37 Q's 16 Grids. --**John N2NT (N2NC --op)**

I thought activity was good. Conditions were fair with rapid and deep QSB. Best DX VA3ELE/R in EN93 at 384 miles which was a surprise. As always missed some good ones that were on. 34 Q's 14 Grids.

--**Dave W2KV**

The Wayback Machine **In CHEESE BITS, 50 Years** **Ago**

Nibbles from April 1968. Vol. XI Nr. 4
de Bert, K3IUV
(author's comments in italics)

Corrigenda. Yes, you are reading this in the May issue, so the column title should be May, 1968. However, I find that I **inadvertently abstracted the real May issue last month, under the title of April.** Perhaps that was an April Fool's joke? And, sorry to report that no one spied (*or no one cared enough to comment on*) my "real" April Fools article in last month's edition. (*A pair of "N" connectors will go to the first person to email me about it - Lenny not eligible!*)

"Our Prez Sez". Dave, W3LHF (later W3ZD) commented: 1) winter is gone and it's time to work on outdoor projects, like antennas! He added that he planned to find a few fishing worms in order to be ready for the opening day of Trout season; 2). An early reminder about Ladies Night; and 3). A few words about the June contest. The contest chairman was Bert, K3IUV (ye author), who promised to "leave no stone unturned in our quest for the big score."

ARRL Bulletin Nr 157, 2/29/68. The ARRL announced availability of a redesigned Operating Aid #90. This dealt with all phases of "message handling". A copy could be obtained with an SASE to headquarters. (*Does anyone still handle "messages?" Or has the Smartphone eliminated the need?*)

ARRL night. Chairman W3HK, George Van Dyke, announced that a number of

league dignitaries will be on hand for the annual event. They will include; the guest speaker , Ed Tilton, W1HDQ (*"Mr. VHF"*); the Atlantic division Director, Gil Crossley, W3YA; and several others including the EPA SCM, EPA SEC, and some of the surrounding county ECs. (*They may have outnumbered the members!)*

FAR. The Foundation for Amateur Radio, Inc (FAR) announced that applications for the John W. Gore Memorial Scholarship could now be submitted. This scholarship was offered to "a worthy, licensed radio amateur who is making a career in electronics or related sciences." Named in honor of John Gore, W3PRL, an early President of the organization, this was an annual award, intended to help in the advancement of Amateur Radio. (*I checked to see if this organization still exists. It does, and they are planning to award 54 scholarships for the 2018/19 academic year! Maybe you know someone that would want to apply.*)

New Station ID Rules. The FCC announced a detailed revision of section 97.87, dealing with amateur station identification during operation. These included: The requirement to identify at the beginning and end of each transmission, and at intervals not to exceed 10 minutes; additionally, at the end of an exchange of telegraphy (*cw if you don't know what telegraphy meant.*) For portable or mobile operation, additional identification required was at the end of each single transmission or exchange; For telegraphy, after the call sign, the fraction bar (sic) DN (dah dit dit dah dit)

followed by the call sign area of operation, For phone, the word "portable" or "mobile" as appropriate, followed by the number of the call sign area of operation. Additional requirements were imposed for operation in foreign locations. (*A far cry from the relaxed identification rules we now enjoy.*)

Two meter exhortation. A somewhat tongue-in-cheek article by WB2SZI, Marvin Shuldman, was reprinted from the Flatbush radio club. The gist of the article was to encourage HF operators to try a taste of two meters. The article stressed the advantages (*and disadvantages*) of the Heath "Twoer", and its usefulness for increasing the number of stations on two. One of the colorful comparisons was: the receiver's bandwidth is a little wider than a Hippos' rear end. (*Not always a negative. If you want to read more, head to W3CCX.com and read the full article in the scanned copy posted there.*)

Great Circle Map. The US Oceanographic Division has made available a map of the Great Circle of the World. Available for \$1.20. (*A modern version, useful to hams, can be found at www.GCmap.com; or www.NS6T.net. You can use either of them on your Smartphone, or pc.*)

Samuel Finley Breese Morse. A nice article, copied from the ham publication "The X-Mitter," provided a synopsis of the life of the inventor of the Morse code. Born in 1791, he died in 1872 at the age 81. His early career was as an artist, but in 1832, at the age of 41, he began the scientific period of his life. He built his

own "models, moulds and castings", and demonstrated his invention in 1836. He then applied for and was granted a US patent. A few more highlights of his career were noted. (*If you'd like to learn more about this talented individual, get a book about his life or Google him . I found "Samuel Morse and the Telegraph" at www.Walmart.com for \$5.21.*)

Meeting Notice. The speaker announced for the next regular meeting was Dr. Alvin Morkins. His topic (*appropriately enough*) would be "Code made Easy!"

Code Practice. Another appropriate notice. The club code practice continues, Monday through Friday on 50.2. Conducted by W3CL, Harry.

Swap Shoppe. (*This was the Packrats "eBay" of the times.*) For sale by K3JJZ (*our auctioneer*): A BC-312 receiver with an ac power supply, \$25; A National NC-125 receiver, \$50; a 24" RCA TV with stand, \$50; a 17" Emerson TV (no cabinet), \$15; and some 4CX250B tubes, new in sealed packages, \$6 each. (*El, did they all sell or are they still down in the bunker?*)

Tidbits of the times. A company in Wichita Kansas makes what they called a "Pak-Rat". It turned out to be a one ton garbage container! GE just introduced a low-cost, one-watt, monolithic integrated circuit audio amplifier. Designated the PA234, it was then available from GE distributors (try to find one now!) The SJRA conducts a Wednesday evening net on 145.3 at 9:00 pm. Net control "tunes the entire band." K3IUV announced the team captains for the June contest. These included well-known VHF amateurs; W3CL, Harry (6-meters); W3LHF, Dave (2-meters); W2EIF, Jo (220); K3UJD, Mario (432 -

.... Wayback cont'd

namesake of our Mario table door prizes); and WB2IOE, Lou (1296.) (**No contest operation on 903, or bands above 1296, 50 years ago.**)

Miscellany. Postage this month (4-sheets, heavy paper, 8-1/2" x 14",) 6c. (*A nice Franklin D Roosevelt bust.*) The copy I used for this synopsis was addressed to W3KKN, "Ernie" The editor of this issue was K3JJZ, El, and the printer was K3GAS, Doc. *As in previous editions, 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 www.W3CCX.COM and read the full issue scanned by K3IUUV, and posted there by our Webmaster).*



Thirty, de K3IUUV

Sea Hunter

Not ham Radio related at all, but of interest to anyone with technical interests. URL <https://www.youtube.com/watch?v=vTto29iaX6I> shows a high speed DRONE warship that's close to becoming operational. It's very unusual, with outriggers and the potential to complete missions (sub-hunting) without any crew. Well over 100 feet long. Welcome to the 21st century!

Tnx to WB2ONA for the info on this ship.

New Packrats

Welcome new Packrats Al Wells KB3SIG and Lee Shearer K3SFX to the club! They were voted in at the April meeting. We all look forward to your fellowship and contributions to the club.



Events

For inclusion, please direct event notices to the editor.

Microwave Spring Sprint - Contest - May 5, 2018, 2300Z. See <https://sites.google.com/site/springvhfupsprints/home/2018-information> for details.

EPA Section Convention - May 6, 2018. At Bucks County Community College, Bristol PA. Sponsored by WARC. See <http://k3dn.org> for details.

6M Spring Sprint - Contest - May 12-13, 2018, 2300Z - 0300Z. See <https://sites.google.com/site/springvhfupsprints/home/2018-information> for details.

ARRL June VHF - Contest - June 9-11, 2018, Join us at Camelback or operate the contest from home. Let's turn in a great score in the spring classic. See <http://www.arrl.org/june-vhf> for details.

HRAC Firecracker Hamfest - Hamfest - June 30, 2018. Harrisburg Area Community College, Harrisburg PA. See <http://www.w3uu.org/> for details.

Murgas ARC Hamfest & Computerfest - Hamfest - July 1, 2018. Polish American Veterans Club, Plains PA. See <http://hamfest.murgasarc.org/> for details.

Sussex (NJ) Hamfest - Hamfest - July 15, 2018. Sussex County Fairgrounds, Augusta NJ. See <http://scarcnj.org/> for details.

CQ Worldwide VHF - Contest - July 21-22, 2018. See <https://www.cqww-vhf.com/> for details.

222 and UP - Contest - August 4-5, 2018. See www.arrl.org/222-mhz-and-up-distance-contest for details.

10 GHz and Up (Round 1) - Contest - August 18-19, 2018. See <http://www.arrl.org/10-ghz-up> for details.

September VHF - Contest - September 8-10, 2018. See <http://www.arrl.org/september-vhf> for details.

An Unexpected but Welcome Award for W3CCX

1000 That
**Mt. Airy VHF Radio Club
W3CCX**
has submitted proof of
one thousand QSOs from the
same Parks on the Air entity:
March 31, 2018 K-1333 Big Pocono State Park
Date Entity Name
Jason Johnston, W3AAX,
POTA Coordinator

Pete, K0BAK submitted logs from the last 2 June VHF contest ops to the "Parks On The Air" program on behalf of the Packrats. The result is W3CCX received a certificate for working 1000+ QSO's from a state park. This was incidental to the June Contest effort, but perfectly valid. Ironically, the sponsoring organization had to modify their scoring software to accommodate scoring of microwave QSO's since none were expected to be submitted.



Phil, John and Bill at Orlando Hamcation

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September 2017 VHF Contest Results

April QST has a report of the September VHF Contest, starting on page 85. There are so many Pack Rat calls that I can't count them all. See Mt. Airy VHF Radio Club, top of Affiliated club competition in the medium category.

I'm proud to be a part of this prestigious group.

Drex W3ICC

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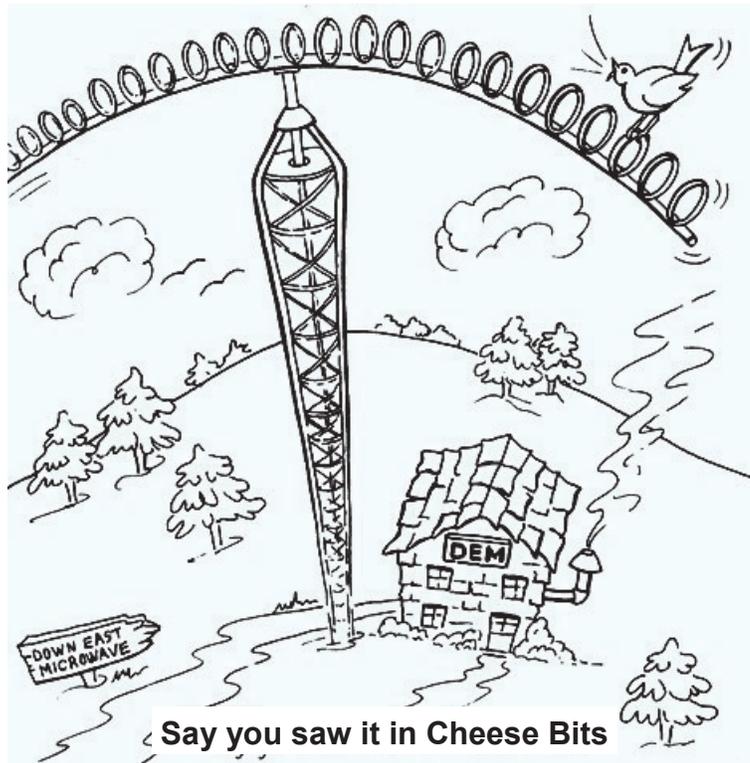
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