



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LXIV

September 2021

Number 9

PREZ

SEZ:

It's not a secret that the Packrats enjoy a good VHF+ contest and September is certainly the Contest Bonanza Month! Starting with the ARRL September VHF Contest on the 11th-13th. It's always a fun contest with many Fixed, Multi-op, and Rovers to work from 50 MHz up through the Microwave bands. Look for the W2EA Multi-op station this weekend on High Knob in the Poconos from FN21KH on 50-1296 MHz. This is followed on the 18th-19th by the ARRL 10 GHz & up Round 2 contest. If you're a fan of the higher micros, this one is for you. Lately a large number of 10 GHz enthusiasts both fixed and portable, have been using K0SM's Rain Scatter (RS) program to pinpoint opportunities for contacts using storm systems located between 2 stations. It's amazing how many contacts over long distances have been made on 10 GHz. Just ask one of these enthusiasts how much fun they are having and you may be purchasing a 2 or 3ft dish and tripod! Just to round out the month and into October are the remaining Fall VHF Sprint Contests Starting 9/20 on 144, 9/28 on 222, 10/6 on 432, & 10/9 on 902 MHz & Up. These contests are short and lots of fun. The Sprints are sponsored by our friends in The Southeastern VHF Society. For more details on the above contests see the "Events" section of this issue.

Speaking of contests, concerns have been expressed lately by many that opportunities to work stations in the traditional "up the bands" method from 2 meters is more difficult with the almost addictive popularity of the digital modes. Phil, WA3NUF has reviewed all comments and suggestions and has assembled a comprehensive multipart plan to use the digital modes to our advantage, while preserving some of the proven methods we have all used for years. He will present this plan to the membership at our first in-person meeting at the Ben Wilson Senior Activities Center on September 16th, at 7:30 PM. The Center has now suggested we wear masks, social distance as much as possible, and do a light wipe-down of areas we have used. They will supply the wipe-down materials. I'm sure you are as excited as I am to be returning to our regular meeting place and being able to say hello to one another in person.

Last month I started **The Prez Shouts Out**. I envisioned it to be about an individual who has done a lot for the club and deserves recognition. A few names popped up and I realized I could not mention one without the others. This month I would like to thank Our Technical Committee consisting of Gary WA2OMY, Bruce WA3YUE, Nick N3YMS, Len N3NGE, & Warren WB2ONA for all the things they do including: Designing the set up of the rigs, transverters, switching circuits,

Pack Rats **CHEESE BITS** is a monthly publication of the
Mt. AIRY VHF RADIO CLUB, INC. –Abington, PA.

We operate on a .PDF exchange basis with other non-commercial publications. Anything that is printed in CHEESE BITS may be reprinted in a not for profit publication, unless stated otherwise, provided proper credit is given. Deadline for articles and swap-shop is the monthly meeting date. Non-commercial swap-shop items free of charge.

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-at-gmail.com

EDITOR:

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

TRUSTEE OF CLUB CALL - W3CCX

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

W3CCX QSL CARDS:

Bill Shaw K3EGE

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz (PL 136.5) Hilltown, PA

OFFICERS 2019-2020

PRESIDENT W2SJ Bob Fischer president-at-packratvhf.com
VICE PRES: W3GAD Doc Whitticar vicepresident-at-packratvhf.com
CORR. SEC: WA3EHD Jim Antonacci correspondence-at-packratvhf.com
REC SEC: KB1JEY Michael Davis secretary-at-packratvhf.com
TREAS: W3KM Dave Mascaro

DIRECTORS:

K3JJZ El Weisman
KB3MTW Michelle London
KC3BVL Jim Huebotter
K3GNC Jerome Byrd
Honorary Director George Altemus KA3WXV

COMMITTEE CHAIRMEN

January Contest MikeN2DEQ andraym2-at-comcast.net
June Contest 2020: MikeN2DEQ andraym2-at-comcast.net
June Contest Technical Chair Phil K3TUF phil-at-k3tuf.com
VHF Conference:
Awards Chairman OPEN
Quartermaster: Bert K3IUV bsoltoff-at-comcast.net
Membership Chairman: Michael KB1JEY kb1jey-at-arrl.net

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	50.150 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

computers, networking, contest related software, & the mechanical items needed to assemble our towers, antennas and feedlines at the Camelback operation each June. When we needed to design new beacons, the technical committee was right there. They have spent many hours of their free time at home on the equipment, as well as at the beacon sites making special brackets for mounting equipment on the towers, running hardline, and installing antennas. In addition, they are always available to make suggestions during the year helping our members with a special issue or question. "Hats Off" and thanks to the Technical Committee for all they do to make the Packrats experience more enjoyable for all of us.



As you know, our general club meetings have been on WebEx during the pandemic. It has served us well by keeping us connected and up to date on club activities and business. Not all members can make every meeting for one reason or another. We have been discussing the possibility of having hybrid general club meetings, so that those at home can also be part of the meeting via WebEx and participate in our club. I will be back in touch with you soon about any decisions or progress made on this idea

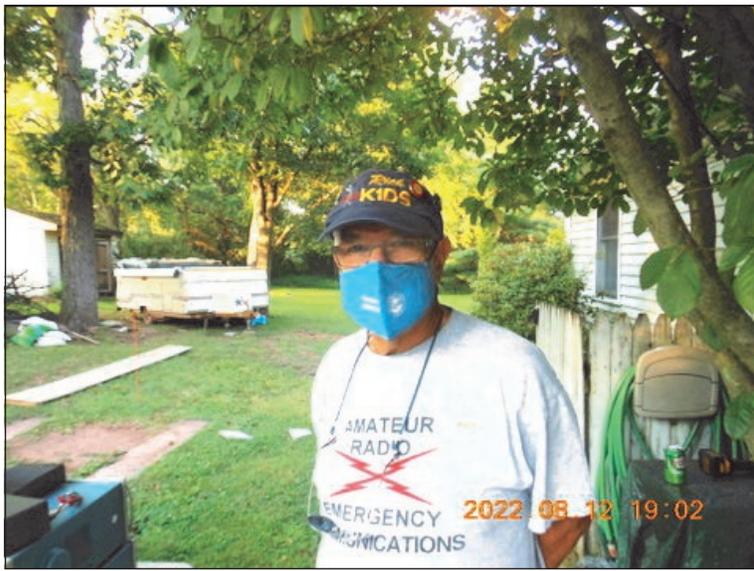
Meanwhile, finish a project on the bench, keep one ear "listening for the weak ones", and the other on the "Magic Band"!

Vy 73,
Bob W2SJ

AUGUST WHITE ELEPHANT SALE AND MEETING PICTURES







Tnx K3JJZ,
K1DS, W3GAD,
W2BVH for
Pics!!



SEVERAL BROWN ELEPHANTS APPEARED AT THE WHITE ELEPHANT SALE

Our first get-together—the White Elephant Sale—since the pandemic cancelled all of our in-person club meetings was hosted by WA3YUE in Collegeville. The evening was warm and humid, but thanks to many fans, we were kept cool in the shade with plenty of hydration.

We all were masked and well-spaced. Thanks to Bruce and Gary WA2OMY, there was plenty of merchandise on display and much of it going for pennies on the dollar. Our perennial volunteer auctioneer, Elliott K3JJZ was there to get the goods moving. After a very brief club meeting “of sorts”, the bidding began. Great coaxial cables, boxes of connectors and microwave transverters, preamps and low power amplifiers in various states of working order were sold. Only one of four Tektronix scopes found a new home.

Warren, WB2ONA seemed to be the recipient of many items that had little interest from other bidders—I’m sure he had a load to go home with. Paul WA3GFZ seemed to find several vintage items that he’ll likely clean-up, get working and display at upcoming hamfests. I even managed to buy a bunch of SMA jumpers. Joe, K3VEQ left with a few items, but his guest Charlie Rittenhouse was empty handed. Serving as auction treasurer, our president Bob, W2SJ kept the books and managed the till.

The Brown Elephants: There was a parade of three baby-sized, complements of Griff, NE3I, and three large wooden ones from the K3DMA estate. If you really need to know what was in them, you need to be at the auction. Each went for about \$5, the “price of admission” to see what was in them.

Watch for next year’s W.E.S. —you may find what you’re looking for, sell what you’re ready to part with, or spend a few bucks to open a white (brown?) elephant box. **It’s always a fun evening.** 73, Rick **K1DS**

222 and Up Distance Contest Reports

From Dave K1RZ:

Thanks for another good distance contest and thanks to everyone who got on to make some UHF+ contacts. Conditions seemed to be normal in the mid-Atlantic across the whole contest period. My best DX was with Eric KV1J at FN44RC at 768 km on 222 and 902, with next best as Mike N1JEZ FN44AR at 742 km on 222 and 432. Another highlight for me was working Wayne N2WK FN03XE 436 km, Peter VA3ELE FN03DM 512 km on USB and Kevin VE3KH FN03CG 490 km, all on 10 GHz.

Rainscatter: While the Rainscatter propagation mode is very normal in the summer, it is always fun and easy find rain cells using K0SM’s Rainscatter program to work long distances on 10 GHz. This contest was also populated by a larger than “normal” contingent of ten Rovers, including Jack AB4CR/R, Les N1SV/R, Marco KD3PD/R, Bill W2RMA/R, John N9ZL/R, Pete K0BAK/R, Glen KC0IYT/R, Rick K1DS/R, Allen(K3WGR) NN3Q/R and Chris NG3W/R. Thanks to all of you for being out and braving wild roads in high parts of MD, CT, MA, NH, PA and VA with UHF and Microwave gear and antennas. Thanks for the amazing efforts you all turned in. Thanks also to the ON4KST 144/432 Region 2 site for hosting us for setting up real time skeds. And thanks to Joe Taylor and the development team for the amazing WSJTX application. For FT8 we used the EU VHF Contest template which passed six digit grids. My box score QSO breakdown modes as 154 on USB, 55 on CW and 15 on FT8. 144,968 Pts. 73, Dave, K1RZ

From Alex KR1ST:

This was a fun contest. I recently rebuilt the shack after installing new furniture and this was a good opportunity to see if everything was working as it needed to be. It did. Well, mostly. The 70cm amp died about an hour into the contest. The same problem reared it's ugly head as it did last time. The matching capacitors on the output of the LDMOS transistors burned up. I'm not sure why it happened now as I have put it through it's paces many times since I repaired it. It must be a cumulative effect. I contacted the manufacturer and got a tip on what to change. Hopefully the LDMOS is not dead this time. The conditions were not very favorable for the 4+ hours I was on. There's a lot of noise on 222 MHz in some directions which I really should try to hunt down. Last year I wrote "Hey, maybe by the time the ARRL gets around to publishing the results we'll be done with this Covid-19 thing. Wouldn't that be awesome?!". Maybe this time NEXT year it will come true... Score 17,455. Thanks for the Q's!

From Pete K0BAK/R:

Activated FN10, FM19, FM29, FN20. Used my new Q5 5-band transverter for the 4 contest bands. No amplifiers so just the transverter output of 20W (except 1296 10W). Log periodic antenna up 30-40'. I do not like this contest, but glad I went out to get experience. 6,599 Pts

From Bob W2SJ:

My favorite contest with no pressure, just lots of fun. 29,423 Pts

From Lenny W2BVH:

My favorite VHF+ contest. Lots of opportunities for microwave QSO's. Thank goodness for the Packrat Slack chat page and ON4KST page. I'm always amazed at the variability of propagation on at 902 and up — routine S3/4 Q's can sometimes blast through at S9+ with a little tropo. I call this contest the "fly fishing of ham radio". Skill and luck are needed in equal amounts. 18,232 Pts.

From Allen K3WGR (op at NN3Q/R):

The August 2021 running of the contest was similar to the 2020 version for NN3Q/r with the exception FN01TB was substituted for grid FM08US. Research was done and the rover run was set to start in FN01TB and move to FN00RG for the finish. This past June during rover contest check out we noticed an absence of 10 GHz! Removing the transverter from the van it was confirmed the 10 xvtr was dead. No lock and the board had to be removed and replaced (thank you W3SZ, and NN3Q). All other radio and equipment checks made were nominal. This contest provides and allows for less use of digital modes. While this is a distance contest with unique scoring it does play well into our operating mantra. For a rover a hilltop or high flat open sites are prized possessions, so you want to be high and not move all that much, as this is a 24 hour contest. The rover was packed with water for drinking, and washing. Food was stored in the electric cooler and all Covid precautions were observed. Site FN01TB (Clearfield Airport) looked good, as it was clear of obstructions from 300 degrees to 120 degrees. Looked good, however low activity levels at the start of the contest held scoring down to a crawl. CQ'ing and setting up contacts did not produce results. It was great to hear and work K0BAK/r in the first hour of the contest on 222 MHz as well as K1TEO FN31 and K1RZ. Stations who showed up on the map did not show up in the contest. FN00RG (Blue Knob Ski Area) was higher, and as clear as FN01TB. Lots more activity on Sunday with many more scoring opportunities. The site provided the bulk of the 47,000+ points scored. The most memorable contacts: VE3WY FN03ae, who answered my CQ with the rover 222 MHz antenna 170 degrees in the wrong direction, after a number of QRZ calls I realized where he was. W1GHZ answered my 222 MHz CQ from FN34uj and then worked him again on 432 (not a big deal? FN34uj, look it up!). Phil K3TUF was worked on all the bands 222 to 10 GHz, the hard way (solid Q's all the way to 3.4 then nothing, ok try 5, nothing ok try 10 and we connected and aligned antennas,

and then went back down to finish the run. Dale AF1T is always great to hear from and work the from grid FN34cd. Working all these great stations and thinking about the contest eased the 3 1/2 hour ride back to FN10xi.

Note to VHF/UHF contesters:

Use the W3SZ/K1RZ map to locate stations projected to participate in the contest. The information obtained will help you plan your contest before and during the event. The map not only projects the participants location it takes into consideration rovers and the multiple grids covered by the rover over the length of the contest. By setting up the map for the contest (and time during the contest) just hovering over the station on the map will show you the bandplan, contact number, grid, bearing to and from your station, call sign, and other valuable information to plan your rove. 73 and see you on the air. Allen K3WGR op NN3Q/r

ARRL 10 GHZ CONTEST (WEEKEND 1) ON BLOCK ISLAND AS EXPERIENCED BY K1RZ

Steve K3WHC left the island Friday night, and I left on Saturday morning, which seemed like the prudent thing to do, given the forecasted damage ashore in Rhode Island and Connecticut from the hurricane. Dale AF1T and Mickie W1MKY elected to stay through the storm, which came ashore Sunday morning on RI after passing right over Block Island, 17 miles off the Rhode Island mainland shore - as we now know.

Friday night I worked through 18 other ferry boat riders in the vehicle standby line and by Saturday morning, I was first in the standby line and got off the island by 0830. Block Island Ferry operations were cancelled at 1815 Saturday. I got home Saturday evening at 2100, after an extra-long road trip given the heavy traffic congestion across Connecticut since so many other drivers chose to also leave Rhode Island and the Cape due to safety concerns from Hurricane / Tropical Storm Henri. The north bound lanes on I95 were also running much slower than normal given the convoys of electric utility trucks and tree removing teams entering the region from other states.

Back on Block Island Dale and Mickie started working the 10 GHz contest at 0600 on Saturday. I worked them at 2117 on 10 GHz Rainscatter, and Ed W3EKT worked them right after me for their last contact before going QRT. They took apart their stations on the porch and packed the car with their microwave equipment and by 0300 Sunday, they then hunkered down, awaiting the arrival of Henri about 10AM Sunday. The house experienced in excess of 69 mph windblown rain, but Dale and Mickie "weathered the storm" in the safety of the house. They will leave the island on their originally scheduled reservation at 1600 today – given that the Block Island Ferry plans to return to normal operation today (Monday) at 1000, if sea conditions permit.

As you know this is not the 10 GHz and Up Contest Round 1 weekend any of us had planned. I did get 20 contacts for 7400 kilometers (points) operating here at home Saturday night and then on and off through the day on Sunday. Dale and Mickie each got about 34 contacts each on Saturday. Now we are off to the September 18-19 Round 2 weekend, with Dale and Mickie going to Martha's Vineyard MA and Steve and I going to Mountain Top PA FN21BE, where we will join with Phil K3TUF and Bill W2RMA, on the roof top. We hope everyone who has 10 GHz and above can point towards FN21BE and work us.

73, Dave K1RZ

An Analog Approach to Using a Single Headset to Drive Two or More Transceivers

By Tom KA3FQS

I use a headset for contesting because it leaves both my hands free for logging and tuning. My shack is like many I have heard of that use more than one transceiver to cover all of the bands. In my case there are two transceivers, one that covers the bands up through 70 cm and a second that covers the bands up through 9 cm.

Both transceivers have provisions to connect directly to a headset designed for use with a PC having 3.5 mm TRS jacks for audio which allows me to use relatively inexpensive gaming headsets. The problem is that when working a station up the bands it requires removing one headset and putting on another and if you are coordinating a microwave contact by listening on a lower band like 70 cm there may be a lot of headset switching taking place. To eliminate swapping headsets I decided to set up a microphone distribution system that would allow one microphone to be used with multiple transceivers.

My requirements for the microphone distribution system are that it has transformer isolation on all outputs to prevent ground loops, provides power to the condenser microphone in the head set, and is protected against RF signals. I sat down with a scratch pad and pencil eventually moving on to LT Spice and Express PCB to complete the design. Concerns about how to package the project and the cost of all of the parts, especially the transformers, caused me to rethink my approach.

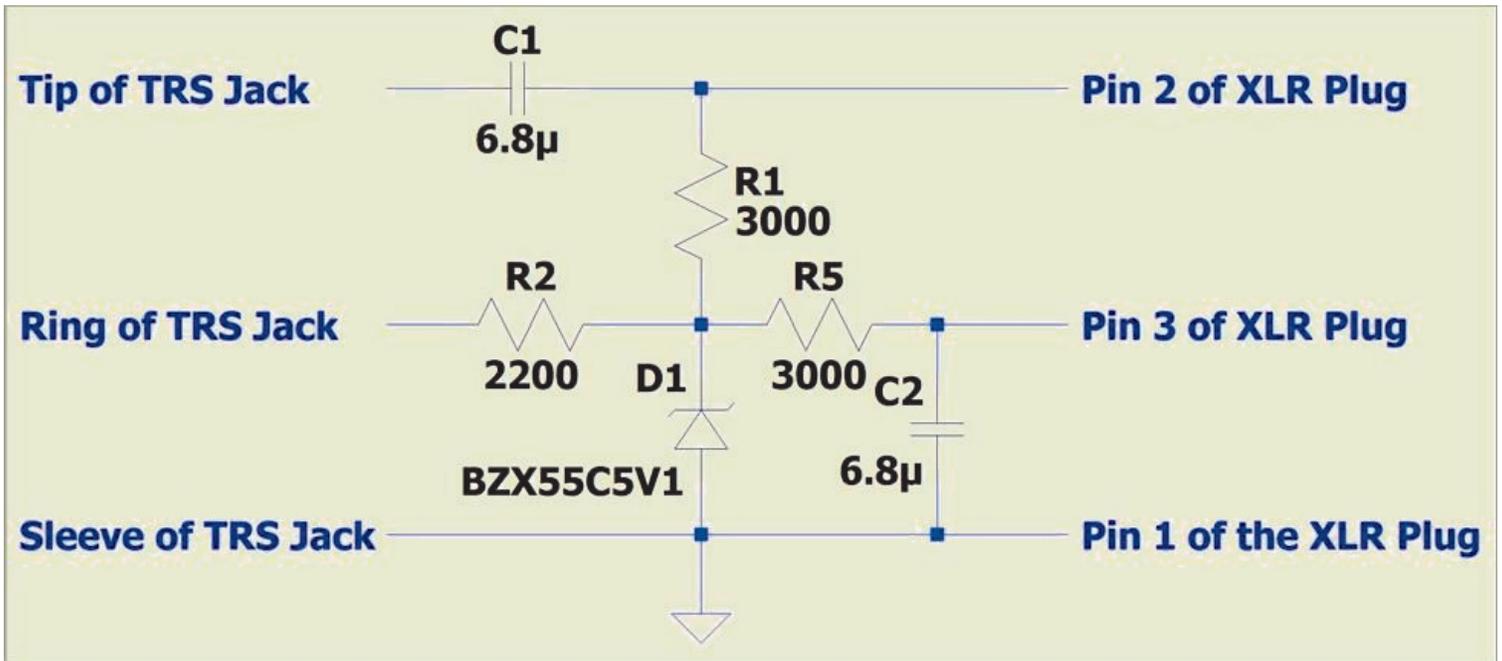
It occurred to me that someone has surely marketed something like this. It turns out that Shure had built something like this, the FP16A Distribution amplifier. It was designed to distribute a single podium microphone to various press agencies as is often seen at press conferences or similar applications.



The FP16A is unfortunately no longer made by Shure but there are several on eBay for reasonable prices, between \$35 and \$75. Before buying one I reviewed the schematic. The common microphone input has ferrite beads for RF filtration, is transformer isolated from the internal circuitry, and has phantom power for powering condenser microphones. There are six outputs that are each transformer isolated, each individually adjustable for output level, and are equipped with ferrite beads for protection from RF ingress.

The common microphone input will interface with low impedance professional microphones such as the SM57, SM7, RE20, or condensers that require phantom power. For those of us who use much less expensive microphones, such as computer headsets, some work needs to be done to interface this type of microphone to this input.

Here is a simple circuit that accomplishes this interface:



Capacitor C1 couples the audio signal from the headset microphone to one side of the balanced input of the FP16A while blocking the DC from the phantom power source. Capacitor C2 connects the other side of the balanced audio input to ground to accommodate the unbalanced signal from the headset while blocking the DC voltage from the phantom power source in the distribution amplifier. Resistors R1 and R5 couple the DC voltage from the phantom power source in the FP16A to the zener diode, D1. The zener diode is necessary because the DC phantom power source in the FP16A has an open circuit voltage of 30 V through 3300 Ohms; the headset microphone is designed to work from a 5 volt source in series with 2200 Ohms. R2 isolates the audio signal of the headset microphone from the low source resistance regulated 5 V source created by the zener diode and provides bias for the headset microphone. A low current zener was chosen to minimize current drain from the phantom power source. Small leaded components were used to build the circuit because this circuit was built in the back shell of the XLR plug.

Connecting the XLR outputs of the distribution amplifier to the radio is relatively simple. The sleeve of the TRS jack is connected to pin 3 of the XLR connector. I used a 6.8 uF capacitor between the Tip of the TRS jack and pin 2 of the XLR connector. This was done to prevent the electret bias supply from the transceiver from getting to the output transformer in the FP16A. Pin 1 of the XLR connector is not connected to anything. The output transformers in the FP16A provide a floating audio signal for each transceiver thus eliminating ground loops. This signal is electrically similar to having an individual microphone for each transceiver. There are 6 outputs on the FP16A so up to 6 transceivers can share a single microphone. This should be sufficient for most single op stations.

On the front panel of the FP16A there are two input level indicating LEDs. A green LED labeled NORM which indicates that the signal from the microphone into the FP16A is in the correct amplitude range. A red LED labeled OVERLOAD indicates that the input signal from the microphone is larger than it should be and that the circuitry in the FP16A is on the verge of being overloaded. Below these LEDs is a screw driver adjustable INPUT GAIN control. This control along with the LEDs is used to set the proper input gain for the microphone being used.

Adjusting the level of the signal fed to each transceiver is accomplished using the six screw driver OUTPUT adjustments on the front panel. The OUTPUT controls should be adjusted per the instructions supplied

with each transceiver for setting microphone levels. This procedure varies from transceiver to transceiver.

The use of this distribution amplifier will not work for operators who use VOX because the microphone signal is present at all of the transceiver inputs at the same time. If you use VOX you will need to come up with a solution for muting the microphone audio to the transceivers that you don't wish to key. In my station I use a dual footswitch to key the transceivers individually. The use of foot switches helps to keep utterances not intended for broadcast off the air such as when the cat comes into the shack and knocks something on to the floor.

This setup has worked well for me in the last couple of contests. Here is a picture of the FP16A under a modified Shure M67 mixer that handles combining the receive audio from the two transceivers into the headset. These are nestled in amongst the other equipment in my shack.



RF Exposure Calculator

In early May, FCC put out a requirement that all hams measure or calculate the rf exposure to people from their equipment. If you have a calibrated field strength instrument you can use that to obtain actual exposure values. If you don't, you can use a web based field strength calculator app. ARRL has such an applet. ARRL explains this in more detail at <https://www.arrl.org/news/arrl-now-provides-free-rf-exposure-calculator>. That site in turn links to the actual applet. (<http://arrl.org/rf-exposure-calculator>).

Hearing Through the Noise on 160 and 80 Meters

VA7ST has done some interesting experiments with "Loop on Ground" antennas, with the objective of decreasing received band noise on 160 and 80 Meters. Using this you don't need the real estate for a Beverage Antenna.

Here is a page with a summary of the work and links to more resources: <https://www.amateurradio.com/loop-on-ground-log-tests-at-va7st/>

The links have some recordings of signals off this antenna vs. a vertical or inverted-L.

MVUS EME Setup at Annual Picnic

The MVUS (Midwest VHF/UHF Society) put together a temporary 432 EME setup at their annual picnic. Here are some pictures and text of the event from their newsletter "Anomalous Propagation" (Used with permission).



Close up of the driven element of one of the Loop Fed Yagis

Most colorful antenna we have seen.

A 432 MHz EME portable station was setup at the MVUS Picnic at Daun Yeagley's (N8ASB) QTH on Saturday August 28, 2021. It was operational starting at about 9 a.m. until the moon set at about 1 p.m.

Joe (WA8OGS) & Richard (WC8RK) were the ones who set up the portable station. It consisted of 4 home-brew 15 ele yagis (15LFA-JT, horizontal polarization), a home-brew power divider, an AGO Products pre-amp NF = 0.29 dB, az-el G-5500 rotor, Icom 9700, and Tajfun amp with 600 watts out. They were using the WSJT digital modes.



Richard (WC8RK) and Randy (WB8ART) at the controls

HAM RADIO FRIENDS UR INVITED



CRAB FEAST



SATURDAY, SEPTEMBER 25
12:00 p.m. - Dusk

Rain or Shine
(in barn/picnic tables also outside)

at Paul & Judy Domanski's Home
987 Dexter Corner Road, Townsend, DE

Crabs, hamburgers, and sodas provided

Bring: A covered dish
Your favorite beverage to share
A chair
Wear: Your callsign - badge, hat



RSVP Not Necessary

Directions: South on Rt. 1. As you come over the Rt. 1 bridge, near the bottom, take the right exit (to take old Rt. 13) (before toll). Follow south on Rt. 13. Approx. 5 mi. south of Odessa, turn right on Rt. 71, (at Valero gas station). Go to next road, Ratledge Road, and turn left. Go to the end of Ratledge Road and turn left on Dexter Corner Rd. We are approx. 1/4 mile on left—split rail fence, tall trees, pond in front. Look for the aerials. Paul's cell **302-388-2679**

73 WA3QPX Paul



The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from September 1971. Vol. XIV Nr 9
de K3IUUV Bert
(*author's comments in italics*)

"Our Prez Sez". Prez Don, **W3CJU**
thanked the club supporters of recent
events:

- Dick, **W3FQD** and "Big" Mario, **W3ELX** for the organization of the Club Picnic. Game Director El, **K3JJZ**, Dave, **W3ZD** who arranged for the sodas, and "the official last to leave after cleaning up," Frankie, **W3SAO**.
- Mort, **WA3EPS** and his xyl Connie, for hosting the July white elephant sale, and Dave for his expertise in "moving things along." And a group of new Hams from the local Explorer Post 68 attended and took away a lot of good items.
- "Big Mario" again, for pitching in to run the Mario (**K3UJD**) auction when needed.
- And a reminder, to check out your gear for the upcoming September contest.

Cheese Bits Tidbit. Need an inexpensive dummy load for 6 meters? A 300-watt bulb is about 50 ohms when driven to normal brilliance (*but where would you get a 300-watt bulb?*).

Technical Article. "Diode and Semiconductor Checker." Author of this article was anonymous. It showed an easy to build tester, used in conjunction

with an oscilloscope, to display the voltage current attributes of various types of semiconductors. Illustrations of the curves for a variety of devices was included. Very useful for a quick check of "barrel transistors and diodes." (*Don't know what a "barrel" device was? Ask an oldster.*)

Other interesting items. Lee, **K3MXM** provided some useful contact information: To complain about mail service, write to Consumers Advocate (Post Office address given); Air Conditioner bill too high? Request a free copy of "Reduce Energy and increase comfort" from the Office of Consumer Affairs; Need a Radio Spectrum chart extending to 300 GHz? Copies available for 40c each from the Government Printing Office; Looking for QSL cards with the Packrat logo? Contact "The Little Print Shop" in Austin, TX.

New Products of Interest. From Lynn, **W3NSI**. 1) High Voltage Bridge Rectifiers from Rectifier Components, Inc. PIV ratings available from 2 to 6 kilovolts. Cost is between \$10 and \$20, depending on the PIV rating needed. 2) ARRL and QST Project kits, available from Barker Williamson, Bristol, PA. They currently had about 15 kits available, with more to come. They assemble all the parts needed to complete designs seen in ARRL articles or QST. No prices given, but an ad promised to be in QST shortly. (*B & W made the full line of "miniductors" used in a lot of homebrew at the time*). 3) Transient Suppressors, from General Semiconductor Inc. Designated as "Transzorbs," and used to clamp spikes or unwanted transients on the dc power

supply line. These units can dissipate 1,500 watts of peak power, and are available from 6.8 to 200 volts. Price about \$4 each.

Picnic Prizes. Dick, **W3FQD** publicly thanked those organizations that contributed prizes for the Picnic. 21 entities were listed. My review shows only 3 still in existence. (ARRL, Bird and CQ.) The rest (including RCA, 73, ALMO, A & G) are all defunct. Sad.

Calendar. September 15, Packrat annual auction at **W3ZD**'s QTH. Two golden voiced auctioneers will be present (*El and Dave?*). September 12, SJRA hamfest, Malaga, NJ. (*Always lots of good stuff at this one.*) October 6, Warminster ARC annual auction. (*Yes, the Warminster club was here 50 years ago.*) To be held at the Hatboro Savings Bank (*also still here!*). October 20, The first indoor club meeting of the new season. (*Shades of today's COVID dilemma.*)

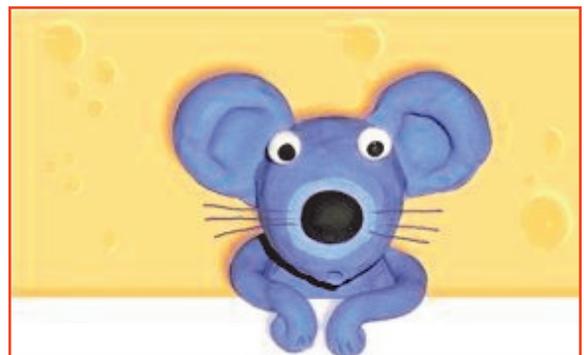
Constitution Amendment. The text for a proposed amendment titled "Provision for Dissolution" was published I recall this was actually prepared by me, at the request of the Board of Directors. The intent was to have an orderly method to dissolve the club should the need arise, and to detail the distribution of club assets. While the proposal was enacted, fortunately it has not been needed in the 50 years since.

Swap Shoppe. By W3ZRR. (*Always nostalgia. Now we use the club reflector.*): For sale by Lynn, **W3NSI**, a Star SR-550 Ham Band only receiver, 160 -6 meters, \$65. A Swan 20-meter SSB transceiver, 240 watts, new

condition, \$100. Heathkit SB-620 Scanalyzer IF input from 455 kHz to 6 MHz, \$85, and a Heathkit VTVM IM-11. Price \$85. (*I still have mine, available for sale at a better price! Let me know if interested.*)

Miscellany. *Postage for this issue was a single 8-cent Eisenhower stamp. (7 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 **WS3O**, 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.

Southern NJ Section Convention and Hamfest - September 12, 2021. Sponsor Gloucester County ARC. Mullica Hill NJ. Details at: <http://www.arrl.org/hamfests/arrl-southern-new-jersey-section-convention-and-hamfest>

September VHF Contest - Contest - September 11-13, 2021. Details at: <http://www.arrl.org/september-vhf>

10 GHz and Up Contest (Round 2) - Contest - September 18-19, 2021. Details at: <https://contests.arrl.org/10g/>.

2M Fall Sprint - Contest - September 20, 2021. Details at <http://svhfs.org/wp/2021-sprint-dates-and-rules/>.

Eastern Pennsylvania ARA - Hamfest - September 26, 2021. East Stroudsburg PA. Details at www.qsl.net/n3is

222MHz Fall Sprint - Contest - September 28, 2021. Details at <http://svhfs.org/wp/2021-sprint-dates-and-rules/>.

Red Rose Repeater Assoc - Hamfest - October 2, 2021. New Holland PA. Details at w3rrr.org

432MHz Fall Sprint - Contest - October 6, 2021. Details at <http://svhfs.org/wp/2021-sprint-dates-and-rules/>.

Microwave Fall Sprint - Contest - October 9, 2021. Details at <http://svhfs.org/wp/2021-sprint-dates-and-rules/>.

Oktoberfest - Hamfest - October 23, 2021. Sponsored by HRAC. Harrisburg PA. Details at: <http://www.w3uu.org/oktoberfest/>

EME - 2.3 GHz & Up – Wknd 1 - Contest - October 23-24, 2021. Details to follow.

EME - 50—1296 MHz – Wknd 2 - Contest - November 20-21, 2021. Details to follow.

EME - 50—1296 MHz – Wknd 3 - Contest - December 18-19, 2021. Details to follow.

Winterfest - Hamfest - January 8, 2022. Sponsored by HRAC. Harrisburg PA. Details at: <http://www.w3uu.org/winterfest/>

Firecracker - Hamfest - July 2, 2022. Sponsored by HRAC. Harrisburg PA. Details at: <http://www.w3uu.org/firecracker/>

Monthly Half Hour 2 Meter Sprint

There's a new half hour sprint on 2 Meters the morning of the first Saturday of every month. Details at <https://fwrc.info/2021/05/21/two-meter-classic-sprint/> It will be interesting to see if it catches on in the northeast. —W2BVH

Two Monthly FT8 Contests

A 2 Meter and a 70 CM FT8 contest is held monthly, with 2M held the first Wednesday of the month and 70 CM the second Wednesday. This contest is organized in EU, but I don't see a reason that NA hams could not participate. (I don't see mention of it being EU only on the web site.)

See <http://www.ft8activity.eu/index.php/en/> if interested.

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

222 MHz Activity Night

There's been an informal 222 activity night in the Northeast (and beyond) every Tuesday night starting around 7 pm (or so) Eastern Time. ON4KST is being used by some to coordinate Q's when direct CQ's are weak.

Bob Fischer

Uber / Lyft Services
Serving the Tri-State Area From
Mullica Hill, New Jersey
bobw2sj@gmail.com



609 440 2916

Please call, text, or email

Uber promo code **ROBERTF1107UE**

Lyft promo code **FISCHER8865**

G AND G ELECTRONICS OF MARYLAND

JEFF GOLDMAN, K3DUA

PO Box 222

Lisbon, MD 21765-0222

(301)258-7373

EMAIL: k3dua@erols.com

-Dealers in New and used electronics-

Joel Knoblock W3RFC

www.therfc.com

The R.F.Connection

213 N. Frederick Ave. #11WWW
Gaithersburg, MD 20877 USA

World wide shipping via FED-EX or US Post Office

Tech Line 301/840-5477 Order Line 800/783-2666

Fax Line 301/869-3680

Hours: Monday-Friday 9:30am-5:30pm Eastern All major credit cards accepted

DESTINATIONS TRAVEL

A Full Service Travel Agency

HARRIET SOLTOFF
Travel Consultant

XYL, K3IUV

229 Fairway Dr
Warminster, PA 18974-3797

Phone: 215-957-6084

Fax: 215-957-6085

E-Mail: BSoltoff@Comcast.net



BEKO ELEKTRONIK

World Class Solid State High Power Amplifiers for EME, Meteor Scatter, WSJT, FT8, Contest with Integrated Power Supplies



Instant ON • Built-In Preamp Sequencer • Overdrive...Temp. & VSWR Protected

144-148 MHz

HLV-1000* 3,100

HLV-1400* 4,300

HLV-2000* 5,250

430-440 MHz

HLV-550* 2,900

HLV-770* 3,150

HLV-1470* 4,580

1270-1300 MHz

HLV-350* 3,200

HLV-800* 4,950

70-440 MHz

All models also available as LPD version with 1 mW P_{in} for SDRs

*P_{out} in Watts • WSJT Full Output Rated • 220 MHz and 70 MHz models on request

Island Amplifier USA

Alpha Service, Panel & Parts

Made in Bavaria/Germany

For BEKO-Elektronik Amplifiers in other areas

☎ 714-412-7399 • <https://islandamplifier.com>
Sales/Service: USA • Canada • S. America

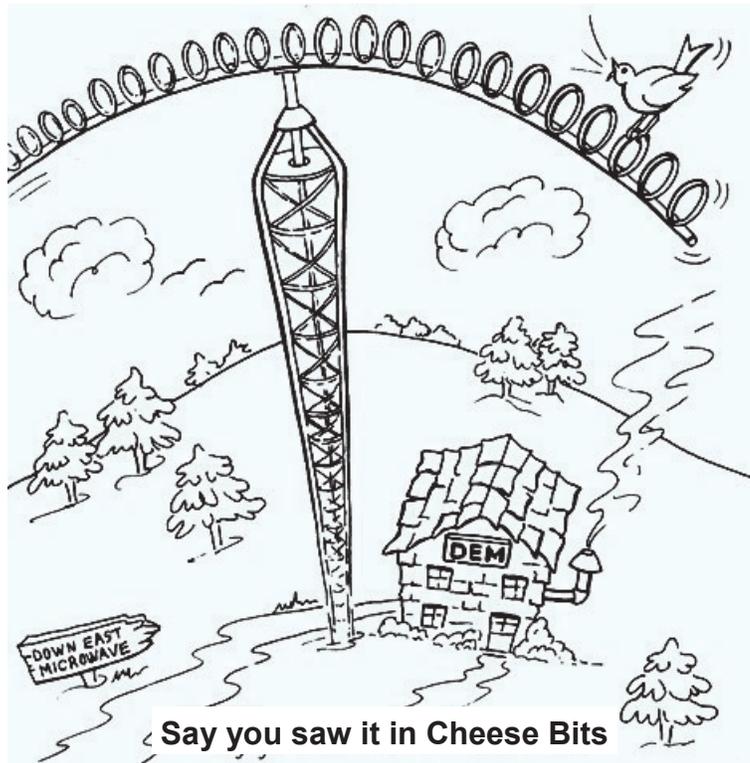
☎ #49 8131 27 61 70 www.beko-elektronik.de

Cheese Bits
709 Lincoln Avenue
Cranford NJ 07016



TO:

MT. AIRY VHF RADIO CLUB, INC.



DOWN EAST MICROWAVE

Manufacturers and Distributors
Of VHF/UHF/SHF Equipment and Parts
50 to 10,368 MHz

- No-Tune Linear Transverters
- Linear Power Amplifiers
- Low Noise Preamps
- Coax Relays, Coax Cable, Connectors
- Crystals, Chip Capacitors, MMICs, Transistors, RF Modules

For All Equipment
Steve Kostro, N2CEI

<http://www.downeastmicrowave.com>

19519 78th Ter.
Live Oak FL 32060
Tel. 386-364-5529 (Voice)