



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LXVI

March 2023

Number 3

PREZ Two Thoughts on Volunteerism

SEZ: Volunteerism is the heart of all hobby clubs, including radio clubs such as the Packrats. This month, I will weave volunteerism into my column in a couple of different ways.

A few years ago, Gary WA2OMY and Bruce WA3YUE came up with a GPS disciplined oscillator project, (<https://www.packratvhf.com/attachments/article/160/A-Packrat-GPS-Receiver-Project.pdf>). Although I owned a Trimble Thunderbolt, I thought that this approach was a much more elegant way to get a precise 10 MHz reference signal for my radios and transverters. I bought the kit. As is too often the case in my ham shack, it was a few years before I was able to tackle the project.

How did volunteers figure into this project? Tom KA3FQS had a surplus 1U enclosed case suitable for mounting in a 19 inch rack. Gary milled the opening in the front panel for the display. George KA3WXV did most of the mounting and interconnecting among the three modules (GPS oscillator, Arduino controller, and the LM317 regulator board). Later in the project, Bruce supplied a revised version of the Arduino

code and coached me on how to place the code onto the controller using Xloader software.

Last summer, George and my neighbor across the street, Nick, helped me attach a Rohn push-up mast to the side of my QTH. On it, we mounted a GPS antenna and connected it to the GSPDO in the shack with a length of RG6 coax. After the hardware was wired, Gary stopped by my QTH and discovered that George and I had reversed the connections to the back panel jacks for the antenna and the 10 MHz output. He also noticed that there was not enough of the center conductor exposed on the F connector at the end of the feedline for a satisfactory connection to the GPS antenna. Without this volunteer help, my GPSDO project would be just another box of parts in the shack.

Switching subjects, when COVID-19 emerged, the Packrats and other local clubs suspended holding in-person meetings. When in-person meetings resumed, local clubs took different approaches to resuming meetings. The Phil-Mont Radio Club resumed meeting at a local Giant supermarket with no Zoom link available. Thirty or more enthusiastic hams pack into the meeting room each month.

By contrast, the Packrats moved to a hybrid Zoom / in-person arrangement at the Ben Wilson Senior Activity Center (BWSCA).

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June Contest 2020: OPEN
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Quartermaster: Bert K3IUV bsoltoff-at-comcast.net
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PACKRAT BEACONS - W3CCX/B

144.300 (FN21be), 222.300 (FN20tk), 432.300(FN20tk), 903.300 (FN21be), 1296.300 (FN20dh), **2304.300** (FN20dh—under repair), **3456.300**, **5760.3** (FN21be under repair), 10,368.017 (FM29jw) **Note: 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	KC3BVL FM29jw Jim
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

Attendance at the resumed meetings dropped by about half. When we planned for resumed in-person meetings, the Packrat BOD held several discussions on how to get better audio into Zoom, led by our maven, Bruce WA3YUE. The



problem that emerged was that no Packrats agreed to bring and set up recommended audio gear for each meeting. We only rent meeting space at the BWSAC so it is not possible for us to leave audio gear behind between meetings. Further, we cannot connect our gear directly to the BWSAC public address system.

Our current solution to bring meeting audio into Zoom is to connect a Bluetooth speakerphone to a laptop, placing the PA system microphone next to the laptop speakers. It works but at least one Packrat has complained about the sound quality. I will put this discussion on the Packrat BOD meeting agenda for March 9th. However, without volunteers to transport additional equipment to the BWSAC, no improvement to the Zoom audio quality is likely. As persons with electronic knowledge, hams often think that all sound issues can be solved with the application of equipment and money. As club president, I often remind members that active **volunteerism** is at least as important for success.

Michael KB1JEY

FEBRUARY MEETING PICTURES



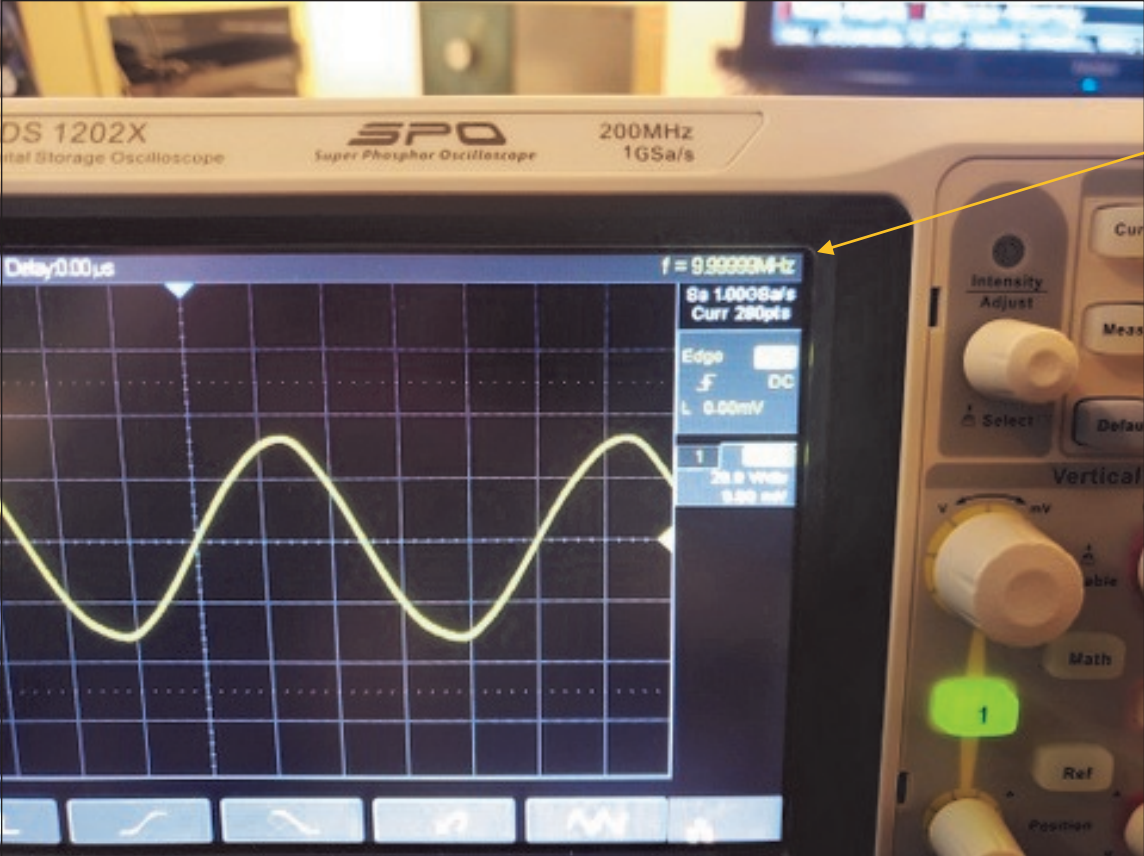
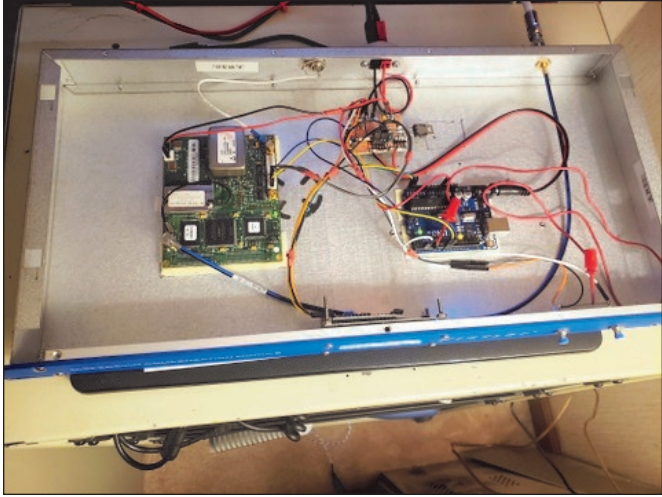


Pix by K3JJZ & W2BVH



Some Pics of KB3JEY's 10 MHz GPSDO

(See this month's Prez Sez for details)



9.99999 MHz shown on the scope. (10 Hz resolution)

Write or QSO: Applying Econometrics to Ham Decision Making

Lenny

I have been sitting on these ideas for a while meaning no disrespect to the literate.

I hope you find some humor in this:

I'd like to stop writing this sentence so i can get back on the air. I'd like to write an article about why you should stop reading this article and get back on the air. The value of this article will be qualified by our next QSO.

If we are still here, let me continue. I mean to say, while you chose one activity (for example, reading this article) you are delaying the opportunity for our next QSO. With this theory, the opportunity cost of a particular activity is the value or benefit given up by engaging in that activity, relative to engaging in an alternative activity.

The optimal radio-activity is the one that, net of its opportunity cost, provides the greater return compared to any other activities, net of **their** opportunity costs. In basic equation form, opportunity cost can be defined as: "Opportunity Cost = (returns on best Forgone Option) - (returns on Chosen Option)."

My personal theory is that:

1. if telecommunication is required, RF voice communication conveys greater quality than the written word.
2. if telecommunication between licensed hams is required, the use of amateur radio increases the value of amateur radio in general, relative to using commercial telecommunications.
3. if one considers other hobbies, the first commandment of amateur radio will be broken: thou shall have no other hobby before amateur radio.

That is all

Jim KC3BVL



Sent to Cheese Bits by Warren WB2ONA

From the Midwest VHF/UHF Society Reflector:

Hello everyone. I was asked to put together an intro to Rain Scatter to help those new to this microwave mode of propagation. This is my 1st presentation so please forgive all the blunders, stuttering and any errors. I have placed it on YouTube and make it available to anyone or any group to use as you see fit. I hope it helps.

73,

Gedas, W8BYA EN70JT

<https://www.youtube.com/watch?v=1B409qekfdc>

Note: Gedas is way too self effacing; this is a terrific video and you'll learn a tremendous amount about Rain Scatter by watching it. —W2BVH

January Contest Rove Report

Two weeks before contest weekend the NN3Q's ten band rover van was denuded of all its antennas, and masts!

The Sunday after the June rove the engine presented signs of a good number of "I need to be fixed" symptoms. Since the 2003 Ford clubwagon is not used for any daily service the priority of getting fixed was not high, Family activities and business demands kept pushing back any active inspection of the problem.

The 222 and up contest date came and the van was not ready nor capable of climbing the grades necessary to get to the top of the mountains. Priorities to have the van running for the January contest now went to the front of the do list.

The engine stuttered, and hesitated and at times it ran as it should and other times it was lucky to just get up a small incline. Shorted wires were found on the catalytic converter. The mass oxygen sensor was intermittent. The #4 ignition coil was intermittent and all eight spark plugs were at the very end of their useful function (the big Ford V8 has individual ignition coils for its dual overhead cam 5.4 liter powerhouse). (Think **ouch!!** for gas mileage).

We fixed all the problems and had a "new" feeling van. And after three days we had the front lower four stack and the rear micro stack installed along with the two K3's and the two laptops.

Russ and I wish to thank all those who we worked us and who at times had to wait a few minutes in queue. We appreciate you finding us and running the bands.

Our score of a little over 51,000 points was made up of classic SSB and CW QSO's. We can not take the time to run FT8 when we were in one of the four Grids we activated.

Weather was with us until late Sunday afternoon when the rain and low temperatures had us heading back to the home QTH.

We will be back for the June 2023 contest. Best 73 to ALL

Allen **K3WGR** and Russ **NN3Q**

A Treasure Trove of Ham Radio Publications

The "Hackaday" web site has an article describing an online archive of Ham Radio publications. The article (with URLs to the archive) is at <https://hackaday.com/2023/02/20/digital-library-of-amateur-radio-and-communications-is-a-treasure-trove/>. There are literally dozens of publications including MANY old Callbooks, 73 Magazines, Popular Electronics etc, etc. Here is page 75 out of the Summer 1963 Callbook:

Note W2BVH whose original call was WN2HKV. (W2BVH was originally the callsign of Thomas Jefferson HS -Brooklyn- Radio Club)

K2HKU	LARRY L. GREENHILL, 70 HAMPTON RD, SCARSDALE	N Y
WA2HKU	FRANK BUTLER, 74 CHARLOTTE AV, HAMBURG	N Y
WN2HKU	FRANCIS R. CASEY, 674 N. PEARL ST, ALBANY	N Y
W2HKV	ROBERT G. CONWAY, 1019 PARK AV, PLAINFIELD	N J
K2HKV	ALLAN B. HEATH, 25-03-88TH, JACKSON HEIGHTS	69 N Y
WN2HKV	LENARD WINTFELD, 649 BRADFORD ST, BROOKLYN	7 N Y
WN2HKW	DAVID F. OLIVER, 245 DORCHESTER RD, RIVER EDGE	N J
WA2HKX	JOSEPH P. GILLEN, 2150 CRESTON AV, NEW YORK	53 N Y

A fun day out making QSO's on 134, 241 and 322 GHz

Here are a few emails from the Microwave mail reflector describing a recent day out by several of our New England friends:

Hi,

A group of us here in VT had some fun yesterday (3/1/23) on the upper microwave bands. In attendance were Brian, WA1ZMS Henry, KT1J Paul, W1GHZ Chip, W1AIM and myself. The bands worked were 134 GHz, 241 GHz and 322 GHz. We set up in Addison, VT along a back road at just 1.1km distance. Temps were in the low 30's with a mid 20 degree dewpoint. Not the best for these bands, but we had a short path.

We started on 134 GHz where signals were good. I was seeing signals better than 30 dB out of the noise. The best band was 241 GHz with signals better than 40 dB out of the noise. On 322 GHz, signals started out on the weak side (headphones) but improved to copy by ear without headphones. As we were working 322 GHz, Dick, W2AAU showed up and we worked him. The rig we used was also capable of 403 GHz but the dewpoint was just too high over the path. We probably could have moved closer, but it was the end of the day and us old geezers were tired... Fun Day! 73, Mike, N1JEZ

Hi,

First of all, congrats ... I love the experimentation aspect and forging new frontiers. But at the risk of breaking the "a closed mouth gathers no feet" rule, I have a few questions:

- how can one be certain that some IF leakage frequency signals are not what is being weakly copied vs the weak 122, 134, 241, 322 GHz signal ?
- what are the ultimate goal / theoretical possible contact distances (as a 1km contact on a good day doesn't seem to have a lot practical use)? 73 Kevin

Hi Kevin,

Good questions!

As to the IF frequency issue, I assume you are referring to the typical "mixer" systems that we use that utilize 2M or 432 as an "IF". Brian's rigs work differently. They are reminiscent of Gunn's. As such, the IF is only for receive. We do not transmit on it. Here's Brian quick rundown of the rigs:

====

-A low phase noise 10MHz OCXO drives a direct frequency synthesizer, whose output is used as the reference input for a Frequency West PLL.

-Both the VCO and step recovery diode outputs of the Frequency West PLL are used to phase lock a Gunn oscillator. The Gunn output then drives a GaAs Schottky diode frequency multiplier.

-The multiplier's output is used as the TX signal and the antenna is a 30cm parabolic dish with a Cassegrain feed.

-For a given band, each station of the pair transmits on a slightly different frequency. Doing this allows for the TX diode multiplier to also serve as a receive mixer. (This is reminiscent of a Gunnplexer system, as the difference between the two transmit frequencies is the receiver IF frequency.)

-The 241GHz stations also include variable, attenuators, and DC bias circuitry to intentionally shift the

Fun day cont'd

mode of operation of the power multiplier diodes from varactor-mode to varistor-mode to exploit higher harmonics such as 322 and 403GHz.

Contacts are made using FSK CW which is generated by slightly shifting the 10 MHz Ref oscillators via their EFC pins.

====

Both Barry and Paul alluded to simply blocking the feed to check for the primary signal and check for spurs. I did that as well.

During our contacts there were several QSB fades. The first was a FEDEX fade when a Fedex truck drove through the path. The other was the Addison Town Highway Snowplow fade...

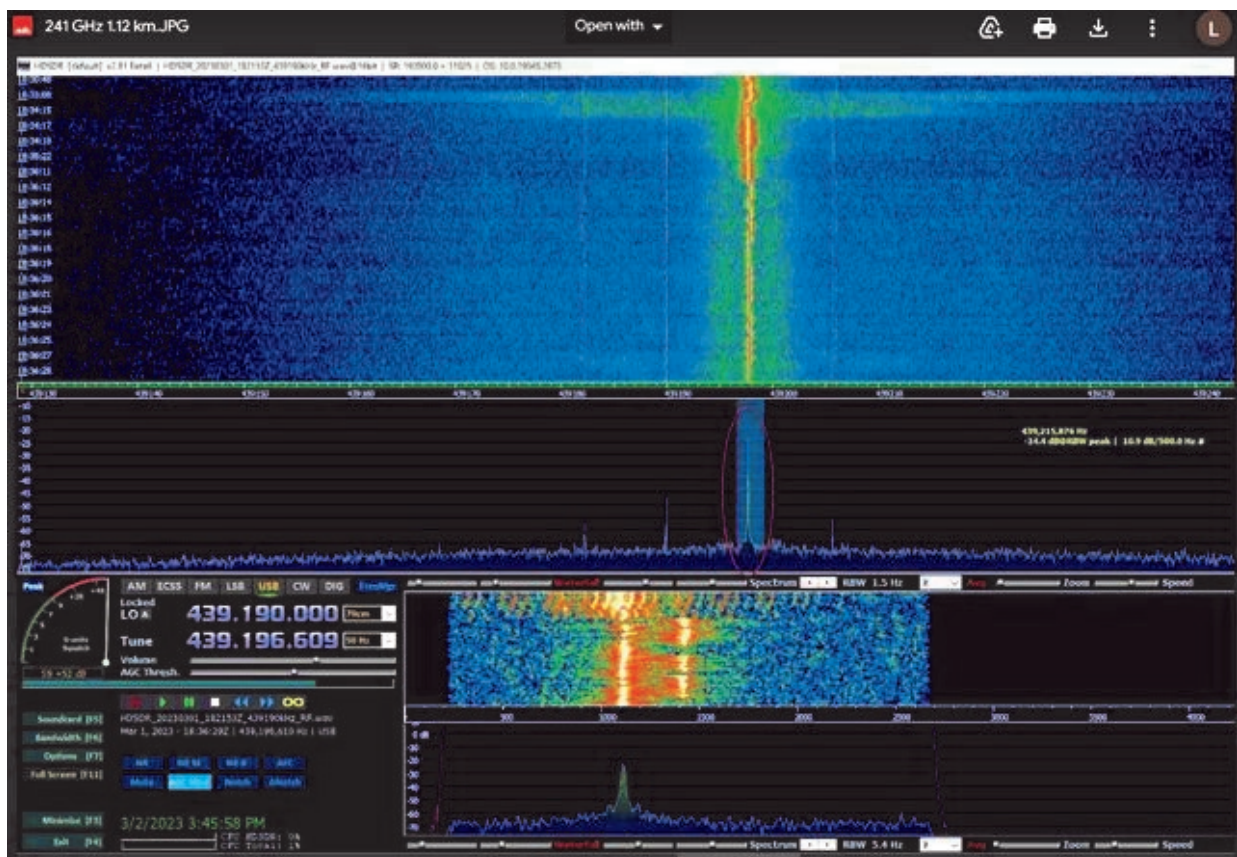
Also of note was the incredible signal level on 241. I believe the rigs generate near 1 mW on these bands. Brian and I were testing the rigs at about 10' apart to start - a typical way we do it to make sure things are working. Brian then placed the 241 GHz rig in the trunk of his car, still powered with the trunk open. He slowly took off and headed to the other end of the 1.1 km path. I could still hear the rig as he was moving and was laughing as the signal Doppler shifted all over. Wish I could have caught that on the SDR.

As far as contact distance, Brian has VUCC on both 134 and 241. I believe his best distance is 114 km on these bands. Mike

A quick screen grab of the 241 GHz signal at my end. Peaking about -23 and the noise floor ~ -65.

https://drive.google.com/file/d/1bKzI3W7zSdU4Q0QJ_VXmd7qPAfEjfGc5/view?usp=share_link

In the bottom 'audio' portion of HDSDR, you can see the FSK. Mike



Packrat Al W9KXI sent Cheese Bits some photos of other Packrats he bumped into at Hamcation



The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from March 1973. Vol. XV Nr 3 de
K3IUUV Bert
(author's comments in italics)

“Our Prez Sez”. Prez Walt, **K3BPP** noted that “Crying Towel” reports were “less drastic” this year, suggesting that members are making progress in improving their stations. El, **K3JJZ** “has been repairing **K3EOD**’s radios for as long as I can remember. But little was needed this year.” He pointed out that El had some amusing accounts written up in past Cheese Bits, and suggested new members borrow old copies to read them. *(Borrowing no longer required, now that the full archive of Cheese Bits is scanned and posted on the website.)* And he reminded us that Al, **K2UYH** had a good moonbounce report scheduled for presentation at the next meeting.

Calendar. March 7th, June contest planning meeting. *(We always believed in planning, to achieve results.)* March 21st regular meeting with presentation by Al Katz, **K2UYH** “432 Moonbounce is easier than you think. May 5th, Ladies Night celebration at The Buck Hotel. Good food and entertainment.

New Products of Interest to Hams.

W3NSI, Lynn’s always interesting article offered up the following new items: 1) Midland 13-500, a 15-watt FM rig is now available. It has 12 channels and is supplied with three sets of crystals. Price \$250. *(The companion 13-509 was released a short time later, for the 222 band. Many of the members procured one for use with the club repeater. I still*

have a couple in the shack.) 2) Tempo 6N2 amplifier. This new unit will run 2000 watts PEP or 1-kw DC input on CW or FM, on 6 and 2 meters. Price \$595 from Henry Radio. 3) A Frequency Counter from Y & C Electronics. Range from 10 Hz to 80 MHz, with a 5-digit LED readout. Price is \$250.

VHF Report. Joe, **W2EIF** noted that 28 stations checked into the two-meter net, “3 weeks in a row.” He received a letter from **WB6NMT** requesting schedules for a 222 moonbounce contact. Bruce, **K2RTH** is presently assembling antennas for such a try. Joe mentioned nightly contacts between Pete, **K1PXE** and Doug, **WA2LTM** on 1296, as well as frequent contacts between Joe and Pete on 220. *(50 years later K1PXE and WA2LTM are still on most Monday nights around 9:30 on 1296 along with several others. Ed.)*

Membership Report. Applications received from Tom, **WA3AXH**, Michael, **WA3PUL**, and George, **WA3SPR**. Voted into membership was Richard Albert, **K3HIN**.

Pictures and Homebrew night.

Homebrew night was a huge success. Fourteen participants presented, and discussed problems and solutions. A dozen pictures were included in the Cheese Bits. Included were the following: Ron, **WA3AXV (W3RJW)** with a Touch-tone Decoder; Walt, **K3BPP** with a “hand grenade” 1156 to 2304 MHz transmitter; Tony, **W3HMU** with an SSB exciter; Joe, **W2EIF** with a 1296 Tripler; and Bill Murphy, **K3ZSG (W0RSJ)** with a 432MHz cavity amplifier.

Clegg 22er FM S-meter. Lynn, **W3NSI** provided a schematic and construction

information for an S-meter add-on to the Clegg unit. A single transistor was used to drive the meter.

Tidbits. Jerry Tessler, **W2GIA** (Ex **K3BHK**) came to the February meeting, after an absence of 9 years. (Jerry, a recent SK brought me into the Packrats. Business and family commitments had kept him away for some time.) As of January 24, 1973, the ARRL has a membership of 80,898. Louis, **WB6NMT** will be conducting 6-meter moonbounce tests until June. If interested, contact him on the EME net on 21.415 MHz at 0000z Sundays.

Swap Shoppe. By W3ZRR. (Always nostalgia. Now we use the club reflector.) For sale by Al, **WB2DOJ**, a Polycomm 62B Transceiver for \$100, a 2-meter Gonset IV for \$125, and a Globe Scout Transmitter for \$25. Mike, **K3BOY** is looking for a 5UP1 CRT. Joe, **W3YXF** offered a 4-element HyGain beam "with instructions" for \$12, and Fred, **WA3RTA** listed a Heath 2er for \$25 and an HG10 VFO (80 through 2 meters). Both together for \$35.

Ads. The March 73 issue included the half page back cover ad from club member Ham Buerger (Astatic D-104 microphone with stand for \$25.) The usual 27 business card ads were included in this issue. I note the current Cheese Bits Ad complement includes only 4 small ads, a ¼ page from Beko and a ½ page from Down East. If you'd like to join them, contact the ad chairman, Bob, **W2SJ**.

Miscellany. Postage for this issue was a single 8-cent "Flag" stamp. (6 double sided, 8-½ x 11" sheets). (Don't forget, current postage went to 63-cents on January 1st, and a penny postcard now

costs 44-cents!) 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 **K3IUUV** (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. Are 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** (comments or corrections to: K3IUUV@ARRL.net)

VU2ESE has a wonderful web page describing the "sBitx", a very modern looking HF SDR he designed. He includes details of how it was designed and all info on how you can build one. It's both simple and sophisticated at the same time. The writing is clear and interesting. Evidently this radio had a limited run as a kit some time in the recent past. It looks simple enough to replicate dead bug style if you choose to do so. It uses a Raspberry Pi as its computer and costs around \$100.. Find it at <https://www.vu2ese.com/index.php/2022/07/20/the-sbitx-the-sdr-for-the-homebrewer/>

Forwarded to the Microwave internet reflector by W1GHZ:

Hi folks, I just posted a video about my trip to visit Rogers Corporation in CT and their partners Fortify in Boston MA to watch them manufacture some antenna parts I designed using their Radix™ 3D printable material. It's a ceramic-filled photopolymer resin and the parts come out feeling like fired ceramic.

I designed a Mikaelian gradient-index dielectric lens and a feed horn lens using a gradient index matching section and non-circular cross section, both using gyroid lattice foam-like structures. I had an absolutely AWESOME time in the US and met some fantastic people.

The video and it's follow-up due out in a few weeks were sponsored by Rogers Corp, so it is a bit of an advertising piece rather than an unbiased review, but I'm a total fan of this material and I loved every minute of the project.

I'm hoping that they will get a few sales as a result. It's pretty amazing that a big US business will take a risk on working with a rank amateur like me who has never worked in this area professionally.

I'll be in CT again for MUD in April, so I hope to meet a few of you there. The lens in the video is a seven inch diameter Mikaelian GRIN equivalent to a biconvex focusing lens, designed for 24 and 47 GHz. I just love the look of the thing!

If you'd like to see what I got up to on my trip, and what a million dollars or so buys you in terms of test gear, the video is at

<https://www.youtube.com/watch?v=3YMRfw0uWlw>

73, Neil **G4DBN**

“TAP”, an alternative to Morse Code

Tap is described at <http://qrp.gr/tap/>. If you arrange the letters of the alphabet and the 10 digits in a 6 by 6 grid, you just have to “tap” out the row and column numbers to indicate a letter. Very clever. Take a look.

W2DRZ Controllers CT-2 Antenna Controller

Hi. This month I am featuring the W2DRZ Antenna Controller. It can be used to automatically track the moon, and also to provide handy control of your terrestrial antennas. It can connect to a variety of position sensors, but the easiest to use is the potentiometer that is already in your rotator. You can directly connect the pot to the controller and it will read out your current position (see below). Then, using the free tracking program, DrzTrack, you can track the moon or sun, or automatically aim the antenna at known station locations.

The full details for installing and using the controller and software are on the web site at: <http://w2drz.ramcoinc.com>. The web pages also have information on enclosures, connectors, and other related products. Regular price \$270,. Price for Packrats and readers of Cheese Bits: \$199. **To Order, email k2txb@comcast.net, or call 856-866-6611**.
73, Russ K2TXB

In the Ad, I mentioned connecting the potentiometer in your antenna directly to the controller. This can only be done if the maximum voltage output from



the pot is no more than +5 volts. There are a number of antennas that meet this specification, but make sure yours is correct. Higher voltages can damage the CT-2 controller. For example, you can directly connect the CT-2 controller to a Yaesu G5500 control box. The G5500 box supplies power to the CT-2 as well as the required 0 to +5 volt outputs from the azimuth and elevation rotators. You can do the same with the Yaesu G800 - G1000 series rotators. Some of them have a special DIN plug that provides all the signals and voltage. Others will require opening the Yaesu control box to connect to the remote control terminals. You can also bypass the control box and connect directly to the rotator pot output. In this case you might have to rewire the pot connections in the rotator to provide the necessary voltage. If you do that, the existing control box would only be able to be used to provide the power to turn the rotator, and you could more easily do that with a 12 volt power supply. All rotator control would then be done via the CT-2 controller. An arrangement like that would normally only be used for EME antennas, but one could also use it in a case where the original control box was not available. See w2drz.ramcoinc.com/din8jack.htm for wiring and pin-out details.

The DrzTrack program has a special mode for control of terrestrial antennas, called the local control panel.. Use this link: w2drz.ramcoinc.com/LocalControlPanel.htm for details.

For all other information use the tabs and indexes in the web page w2drz.ramcoinc.com/index.htm.

The 2023
Trenton
Computer
Festival™

TCF™ '23



The First and Longest-Running Computer Fair in the World!
Saturday March 18, 2023 | 9 am - 5 pm ET | Saturday March 18, 2023
<https://tcf-nj.org/>

In-Person Admission:

\$15 (advance), \$20 (at door)

- Children under 12 Free; Free Parking & Wi-Fi
- Free Streaming through <https://tcf-nj.org/>

Reminders:

- Ham Cram starts at 9:00 am
- Talks start at 10:15 am
- Vendors open 9:00 am—3:30 pm
- Banquet: 6:30 pm (extra fee)

Theme: Electric Vehicles and Related Technologies



Keynote Speaker :
Lee Goldberg, 3:40 pm ET

Contributing Editor of Electronic
Design Magazine
Author of the book "Green Electronics"



Photo: Pixivis.com (3)

50+ Talks, Workshops, Tutorials, Demos, and Vendor Faire!
Robotics | Drones | Gaming | Sarnoff Tours | EV Car Events | OOP University (Python & Java)

Some of the many talks at TCF'23:



Jonathan Allen
How Green Is an
Electric Vehicle?



Joe Jesson
Global Communication
After Power Failure



Chuck Knight
Program your EV with
Python



Lou Justice
WordPress Bootcamp



Donn Fishbein
Stock Trading Using
Neural Networks &
Genetic Algorithms



Sharan Kalwani
Embedded Computing
in Electric Vehicles



Barry Burd
Airline Piloting -
Programmer Nightmare



Katalin Frolo
Hands-on Arduino Tutorial
For Beginners



Eva Kaplan
Conscious Systems



Don Hsu
Will you Buy a Tesla?
Why or Why Not



Rajesh Kannan
An Autonomous
Multipurpose Service
Robot, *Sudah*



Liz Najman
Common Misconceptions
about Electric Cars

IEEE/ ACM IT PROFESSIONAL CONFERENCE

Friday March 17, 2023

Hybrid (In-Person & Streaming)**

Info: <https://princetonacm.acm.org/tcfpro>

Hack-Lo-Thon

Saturday March 18, 2023

For students to build skills in Internet-of-
Things and compete for prizes!

Info: <https://hackiothon.pages.tcnj.edu>

Ham Cram Session & Exam:

Saturday March 18, 2023

Get an Amateur Radio License
in ONE DAY at TCF!

Cram begins at 9:00 am



Don Sleplan
Wearable
Synthesizer
(Live
Computer
Music &
Discussion)
12:25 pm

2023-03-16 17:38 2023-02-21

** The ITPro (Friday) Conference requires separate registration.



TCNJ School of Engineering and
Electrical/Computer Engineering Dept.
<https://electrical-computerengineering.tcnj.edu/>



EV Car Show
and
Ride & Drive
From
10:00 am
to
2:00 pm
(Weather
Permitting)

The 2023 TCF™ is sponsored by The College of New Jersey, its School of Engineering and supporting organizations.

Events

For inclusion, please direct event notices to the editor.

2M Spring Sprint -Contest— April 10, 2023. 7:00 - 11:00 Local See <https://sites.google.com/site/springvhfupsprints/home/2023-information> for details

222 MHz Spring Sprint -Contest— April 18, 2023. 7:00 -11:00 Local See <https://sites.google.com/site/springvhfupsprints/home/2023-information> for details

432 MHz Spring Sprint -Contest— April 26, 2023. 7:00 -11:00 Local See <https://sites.google.com/site/springvhfupsprints/home/2023-information> for details

York Hamfest - Hamfest - April 29, 2023. Spring Grove PA. Sponsored by York Hamfest Foundation. See <http://yorkhamfest.org> for details

Microwave Spring Sprint -Contest— May 6, 2023. 8:00AM –2:00PM Local See <https://sites.google.com/site/springvhfupsprints/home/2023-information> for details

Warminster Hamfest and and ARRL EPA Convention— May 7, 2023. Bristol, PA. See <http://www.k3dn.org/hamfest> for details.

6M Spring Sprint -Contest— May 13 , 2023 2300Z—May 14 0300Z See <https://sites.google.com/site/springvhfupsprints/home/2023-information> for details

ARRL June VHF Contest— June 10-12, 2023. Details to follow

Firecracker - Hamfest - July 1, 2023. Sponsored by HRAC. Harrisburg PA. Details at: <http://www.w3uu.org/firecracker/> for details.

Meteor Shower Calendar

Here's a Meteor Shower Calendar showing the dates for all the Meteor Showers in 2023. They're correct for our location in the Northeast. <https://www.timeanddate.com/astronomy/meteor-shower/list.html>

Microwave Update

Microwave Update 2023 (postponed from 2020, 2021, and 2022) plus Northeast VHF/UHF Conference April 14 & 15, 2023 Hilton Garden Inn @ Bradley Airport, Windsor, CT

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.

Details for registration and hotel coming very soon at microwaveupdate.org

KC3BVL UHF+ Wednesday Net

Packrat, Jim KC3BVL conducts a Wednesday night net with schedule as follows: 7:30PM—903.100, 8:00PM—2304.100, 8:30PM— 432.160, 9:00PM—1296.100

KC3BVL VHF Friday Net

Packrat, Jim KC3BVL conducts a Friday night net with schedule as follows: 7:30PM—144.160, 8:00PM—50.160, 8:30PM— 222.150

Reminder: there are 3 FT8 VHF / UHF Activity Contests each month. For info see: <http://www.ft8activity.eu/index.php/en/>

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

1296 MHz Activity Night

There's an informal 1296 activity night in the NY/ NJ/PA/CT region (and beyond) every Monday night starting around 9:30 pm (or so) on 1296.110. No coordination, just jump in and say hello W2BVH

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. W2BVH

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PLEASE SEND IN 2023 DUES

Club dues are due as of Jan 1st, 2022. Go to
https://www.qsl.net/w3km/MtAiryRC_Dues.htm and
use the "check here" link to see if you already paid.
If not, enter your callsign and click on "PayPal"

AS OF 3/5/23 17 DUES REMAIN UNPAID !

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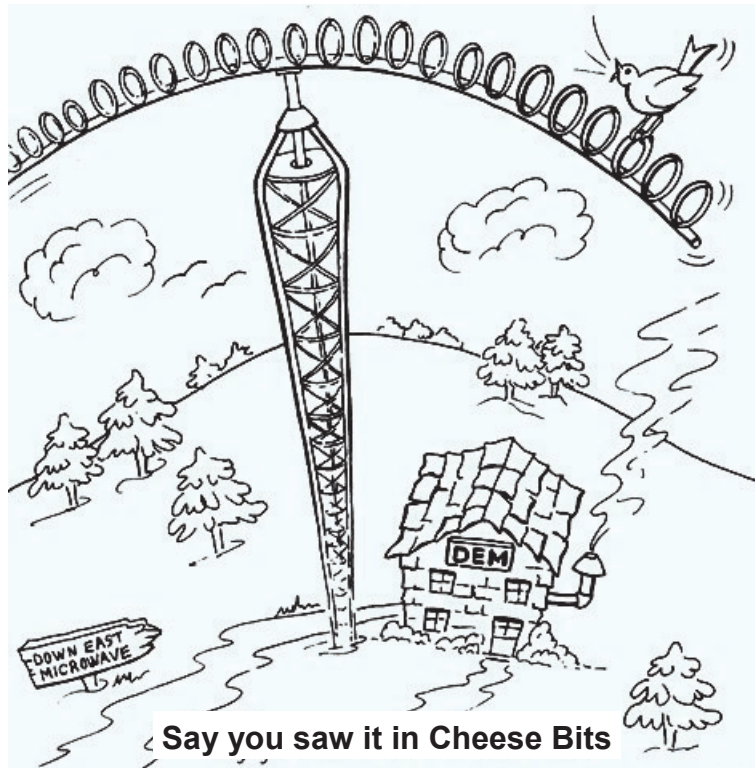
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