



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LXIII

June 2020

Number 6

PREZ
SEZ:

Well it's here! The June contest. As you know we will be operating from our home stations and not from Camelback this year.

I know I'll be repeating two ideas that Mike, N2DEQ and others have said but they are important so here they are.

I cannot over emphasize the importance of updating the K1RZ/W3SZ database with your planned hours of operation and the bands you will be on. This affects the usefulness of the Packrat Finder and it's Map Extension. Whether you use this tool during the contest or not, it helps the rest of the club members including the Rovers, therefore the overall club score. Your information is important to them.

The second item is the wise use of the different modes. CW, SSB, FM, and digital modes like FT8 and FT4. Each mode has it's advantages but knowing when to change to another is the important part.

SSB might be the best mode to start with especially the first few hours of the contest. Work those strong ones but watch for any band enhancements. Lets face it, many hams only use SSB. It can be quick and easy to "Tail Gate" on two stations you hear. For those who use CW you can try working those weaker SSB stations you hear. It only takes a few seconds to try, they just may come back !

After the initial rush and you have worked everyone you hear on SSB its time to check out the digital modes and scout up some distant grids. Check back on the SSB frequencies before the start of the next hour.

Give ALL of the modes you operate some time. If you spend most of your time on digital you will miss many Packrats and smaller stations. Mike has several suggestions he has documented on this. Check the Packrat web site under Contest Info tab. **If the tab doesn't show sign in and it will.**

You have heard all this before. What I'm trying to do is to get us to THINK about how we can best use the modes each station has, not only for the station's score but the overall CLUB score. Yes it's fun to use SSB, to hear that voice on the other end maybe after calling several times. Yes its great to use that new digital mode picking up those new grids you've only dreamed about in the past. But I encourage us all to think of the common good of the Packrats. Actually, that's in our Packrat Constitution.

June marks the end of my third and final year as a Packrat president. It's been a very interesting time and I can honestly say I enjoyed it. But I personally think that 3 years is long enough. There needs to be a turn over. Someone with new enthusiasm and ideas.

That said, the BoD has been great and supportive. Thank you gentleman (and ladies). I'd like to also thank the many Packrats who

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PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz (PL 136.5) Hilltown, PA

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PACKRAT BEACONS - W3CCX/B

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

MONDAY / TUESDAY NIGHT NETS

VHF/UHF Monday:

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:00 PM	224.58R MHz	WR3P FN20kb Ralph
7:30 PM	50.150 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

have worked behind the scenes, out of the spotlight. At times I've asked a Packrat to take on a task and they've done a great job and willingly. Other times certain Packrats have noticed something needed to be done and they simply picked up the job and ran with it. The last group I'd like to mention is the past presidents. They mentored me when I asked for help and advice. Some have served recently, some 25 years ago. The club owes it's success of the past 3 years to all these people.



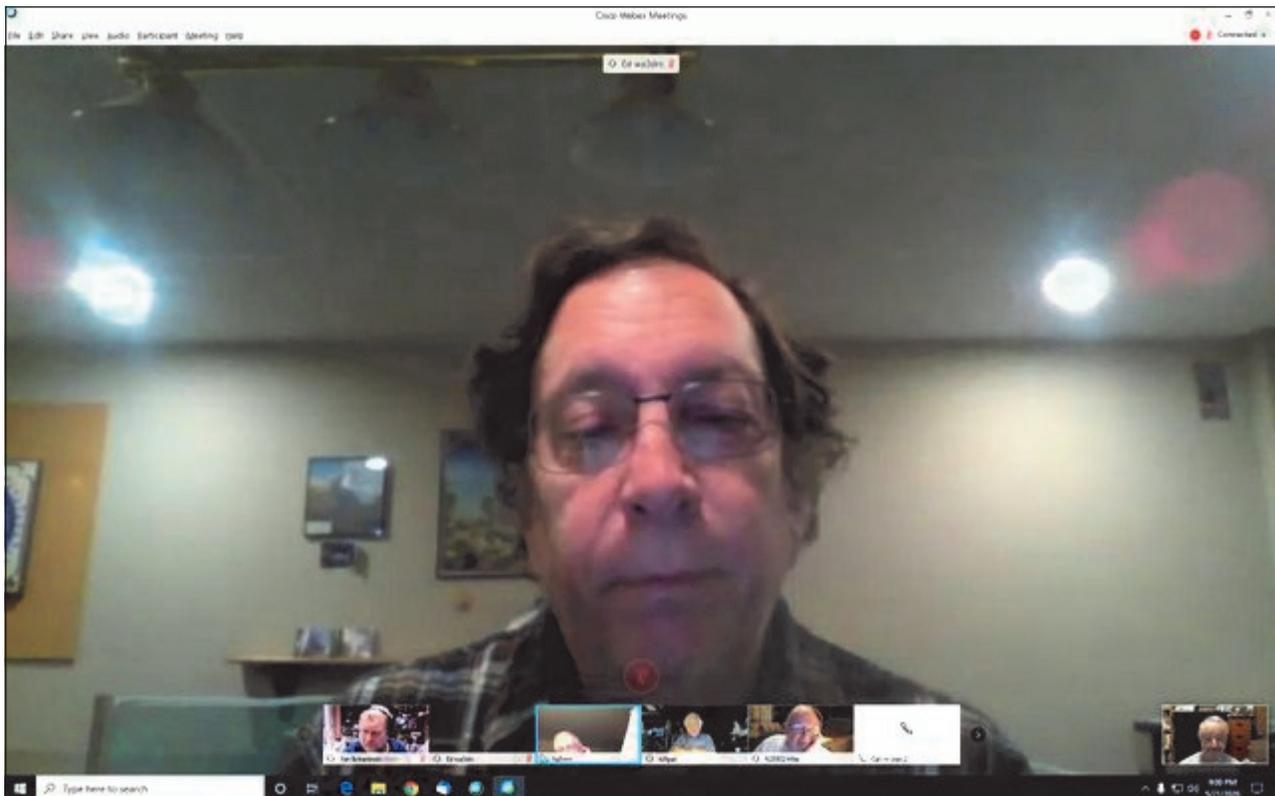
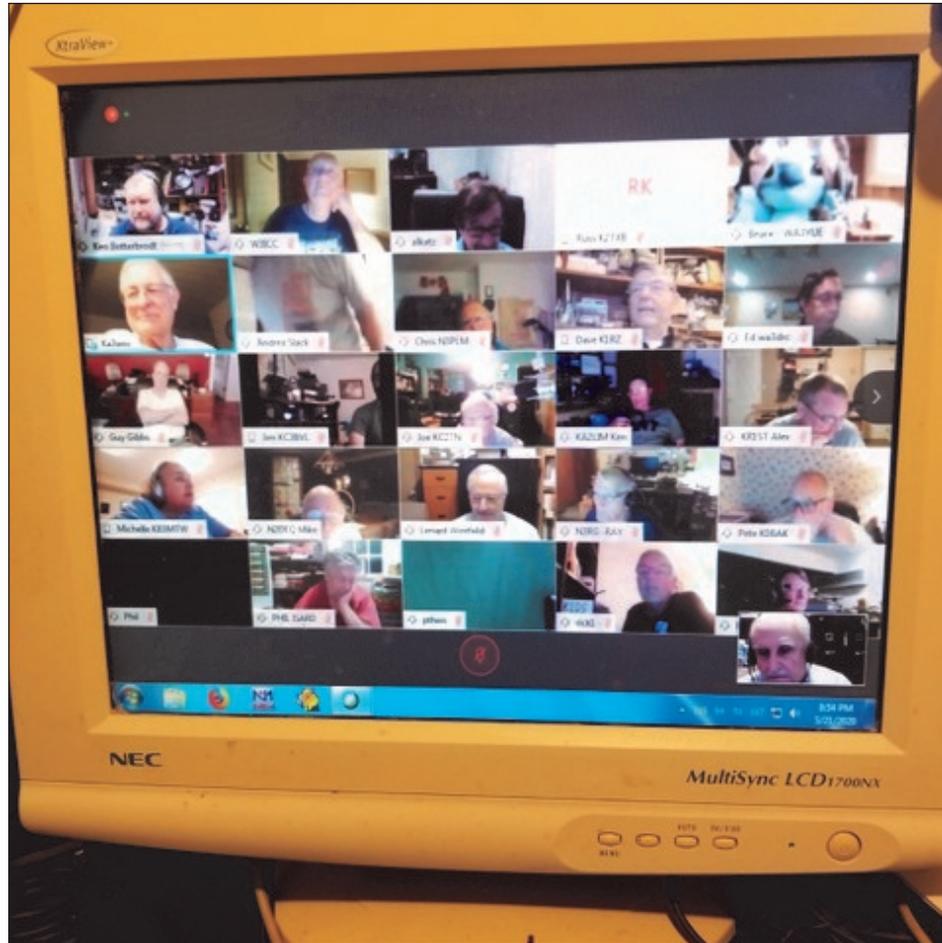
Like past presidents I'm still "on the hook" for future Packrat endeavors. I intend to be Camelback chairman for 2021. A lot of Packrats put tremendous effort into preparing for the 2020 effort and I want to be part of the 2021 effort. I also plan to help with the 2021 MUD effort in Virginia.

In my imagination, I look on the workbenches out there and I still see an LNA and a transverter or two. I guess we have some work to do before the contest. Time to spend some (more) time on the bench, learn more and build something.

Stay safe.

73, George KA3WXV

May (WebEx) Meeting Pics







Finally 2304 is once again alive and well in FN20mg

By **Doc W3GAD**

After years of procrastination and false starts, a 2304 transmitter project is completed and on the air. With everything slowing down, and less places to go, I was able to complete the mechanical and electrical modifications and design work to have a 2304 transmitter completed. Thanks to the skills of Gary WA2OMY the final touches to put the project on the air were completed. The results are that I now have 45 Watts of RF with a 10MHz disciplined LO on 2304 MHz.

My first contact was with K1RZ on CW with 539 reports both ways, 218 KM on a wet Sunday evening . The W3SZ map extension to the PACKRAT FINDER DATA BASE indicated a reasonable path, and Dave and I proved that a few obstacles can't stop us from easily completing the QSO. Maybe a few more of those hard to make contacts will now become log entries for the VHF Contests.

Here are pictures of the completed transmit and receive converter sections.



Figure 1: Digital conversion project in a temporary location sitting on a rack shelf.

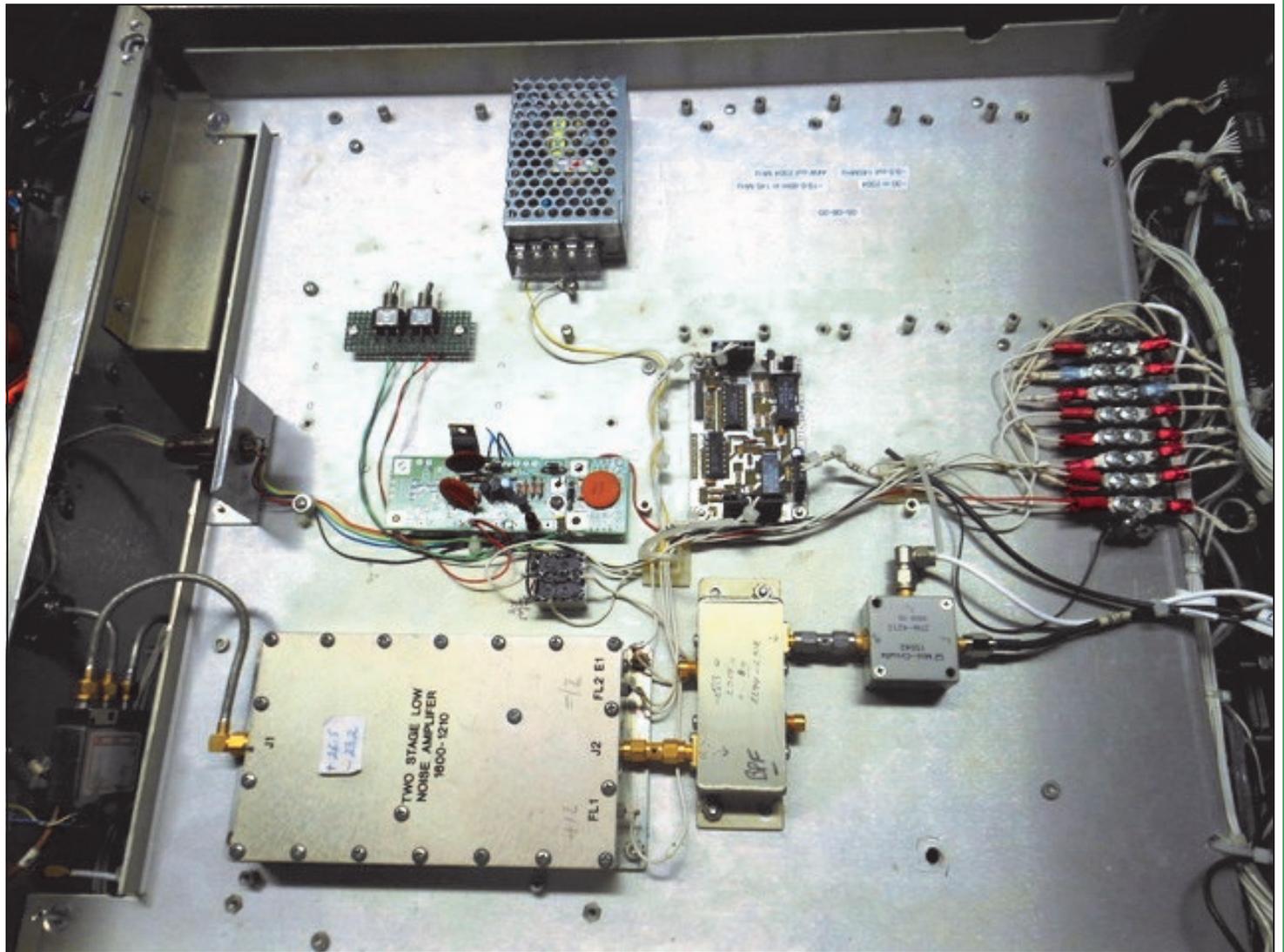
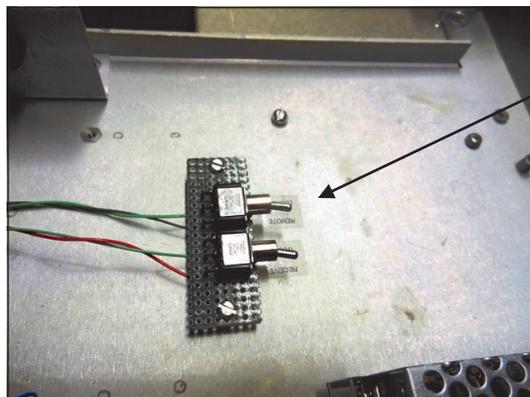


Figure 2 Receive and control section on the upper tray of the transverter. We are using the preamp from the original receiver and a 3 pole filter into the mixer. The preamp has a bias protection board (If no negative voltage, the preamp 12 V is cut off) to protect the preamp. I am using a W1GHZ Fool resistant sequencer and a MeanWell DC to DC converter to provide a reliable 24 VDC source for relays. The connector on the left is from the Mario table and allows easy access to the lower RF deck. The RF TR relay is in the lower left. The 2 small switches are for ease of service to enable the system when out of the rack and to put the system into transmit.



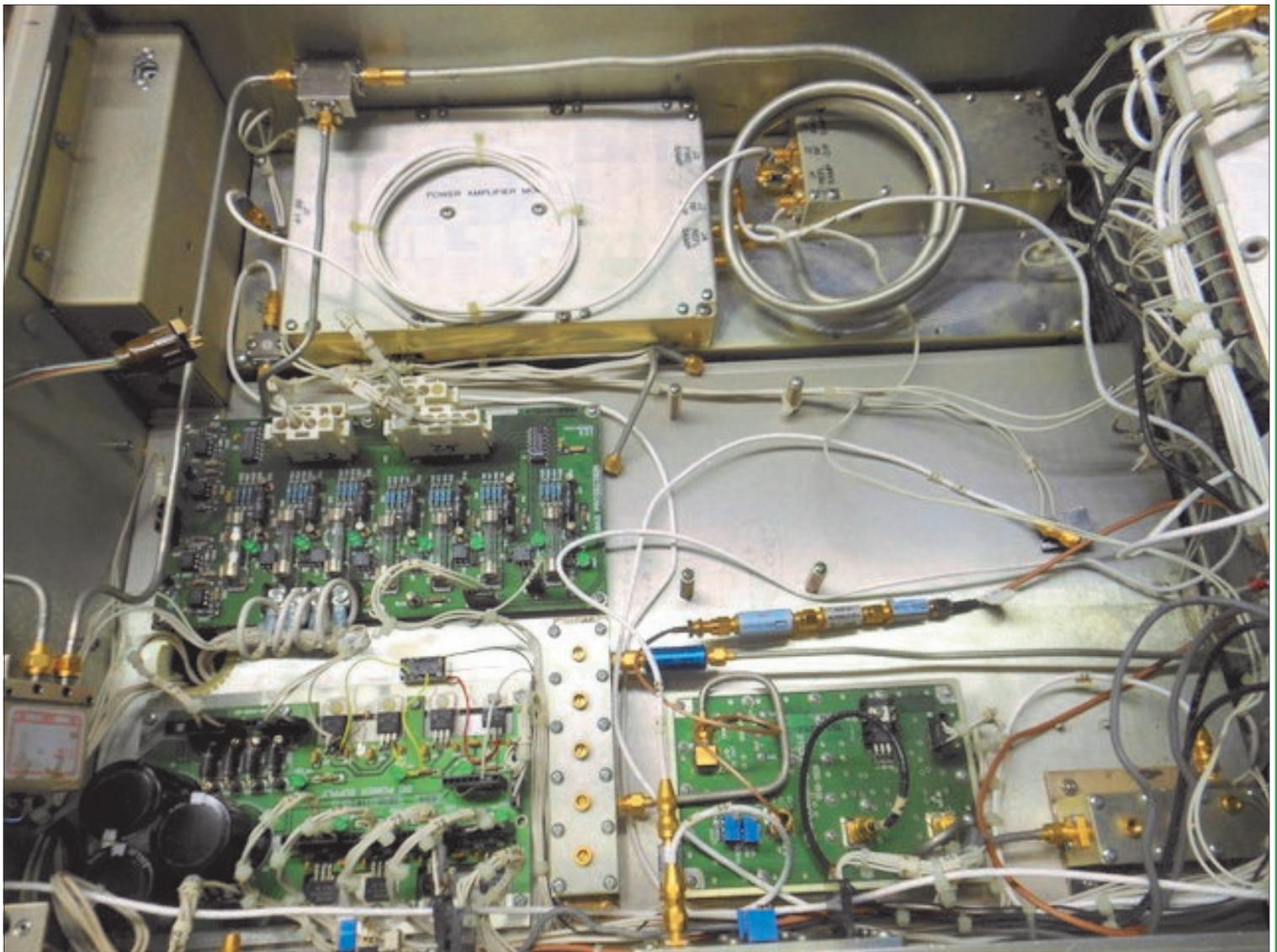


Figure 3 THE RF DECK On the bottom left is the Multi-voltage power supply with the PA bias control relay “dead bugged” just above it. In the middle left is the PA and Driver stage bias protection board with plenty of fuses. The Upper Left is the PA on the big heat sink with the blower fan in the box to the left. The coil of RG 179 coax is a 4 dB attenuator between the driver and the PA. Also shown is the isolator and the piece hard line from the pa OUTPUT. The top right is the driver amplifier (10 Watts) On the bottom center is the 5 pole interdigital filter after the mixer. To the right is another filter from the LO System. In the lower center is a string of attenuators to provide -20 dB of IF drive into the active mixer. There are a lot of extra unneeded wires and connectors but, since this “NOT FOR FLIGHT” they will remain in place.

I would like to once again thank Gary - WA2OMY for finalizing the RF and tweaking the LO. Also a BIG thank you to Bruce - WA3YUE for working with Gary to figure the best way to make these Digital Conversion boxes work for ham radio and for the great job in documenting the steps needed to make the conversion.

The 10 MHz reference is currently provided by a rubidium oscillator with 10^{-12} accuracy. The GPS project 10 MHz reference is, at this writing, in the final stages of completion. This will provide accuracy of 10^{-15} . Using either reference I'll know where to find 2304.1. The frequency is stable enough for use with WSJT-X. I am looking to working many more PACKRATS on 2.3 in the future.

6 Meter Converter Offered By Bill K1DY (with comments from the Peanut Gallery)



Barn fresh, needs a little adjustment. Make offer. More pics available for serious enquiries —Bill [K1DY](#)

I bet you could ask 25% over list price for that on QRZ -- Sean Waite, [WA1TE](#)

I love it! Nuvistors!! Should be easy to tweak up and get going. -- Joe, [K1JT](#)

Just replace all components and hardware and it should work fine. — Lenny [W2BVH](#)

Yep 6CW4's I guess around 4dB N.F. Probably all you need on 6! — [K1DY](#)

You just need to clean off the sheep dust and plug in a Nuvistor. —Dave [W3KM](#)

That Looks like a generous coating of magic dust, some may even be from BUCKS COUNTY — Doc [W3GAD](#)

If anyone wants the tune-up challenge, I'm sure i have a couple of 6CW4's in the basement (packed away with the 417A's) — Bert, [K3IUV](#)

[Well now that we've finished beating that dead horse, on to the next article... —[W2BVH](#)]

Some Comments on "Old School" Logging from the Packrat Reflector

Speaking of old school, remember when we used to log on paper with pencils?? — Bill **K1DY**

Manual logging not so bad, but I don't miss dupe sheets (even a little bit) ;-) -- Lenny **W2BVH**



I really don't miss dupe sheets either, BUT there are probably a lot of club members who don't remember contesting "duping" pre-computer. How the heck did we do that? Here's some check sheets from the June contest 1978. I assume in Hilltown but there were a couple outings NOT at Hilltown like Spruce Knob etc. during that time. Anyway check out the "manual" dupe sheets for 50 and 144MHz and I think you can probably make out some calls on there.. (Hint, W1HDQ is in the 6M log!!). TIME FOR A MILLION!!! —Bill **K1DY**

Nice find Bill. I'm sure i still have some down in the basement shack. I know I've still got copies of paper logs. And I still recall writing my first logging program. It was for a TI-99 (remember it?) I seem to recall it had 16k of memory. Used a cassette recorder for storage. Come to think of it, I still have two of them in the basement. Any takers? — Bert, **K3IUV**

I actually was a hold out doing paper logging until I started exceeding 200k then computer logging became a necessity. —Bill **AA2UK**

Joe Landis AA3GN, SK



It is with great sadness, I have to let everyone know that Joe Landis - AA3GN passed away last night (5/23). His wife Carol sent me the news this morning Joe was a long time Packrat and avid contester. Joe was also the manager of the Packrat reflectors for as long as I can remember. RIP. Chris - N3PLM

I am very sorry to hear this. Joe was a good friend.

RIP Joe. — Dave W3KM

Very Sorry to learn that Joe became a Silent Key. One of the first Packrats I met after I joined the Club, Joe always made you feel welcome and was receptive to and displayed a genuine interest in discussion of Packrat related topics whatever the technical level of sophistication such inquiries or comments reflected. Really a nice guy. Joe will be missed. —Griff NE3I

Oooh, what unwelcome news. I am so sorry to learn of the death of Joe Landis. He was such a good friend, and over the years did so very much for our club. -- Joe, K1JT

I am so sorry to hear the news, Joe was always a fighter and when ever we met he had a smile and a kind word. He will be missed. RIP. —Doc W3GAD

Such a sad day to hear of Joe's passing. I fondly remember some of the board meetings and post-VHF contest meetings that Joe hosted at his home. He was a great contributor to the club with hosting our reflectors. When he was active on the air from his great hilltop location, he was a huge contributor to Packrat logs and aggregate club scores. I was always amazed at his mountain biking ability. He will be missed. — Rick K1DS

Sad news, Joe was one of the home-brew op's, Always had a variety of things he was working on. Supported the club in many ways. Sorry to hear this. — Gary WA2OMY

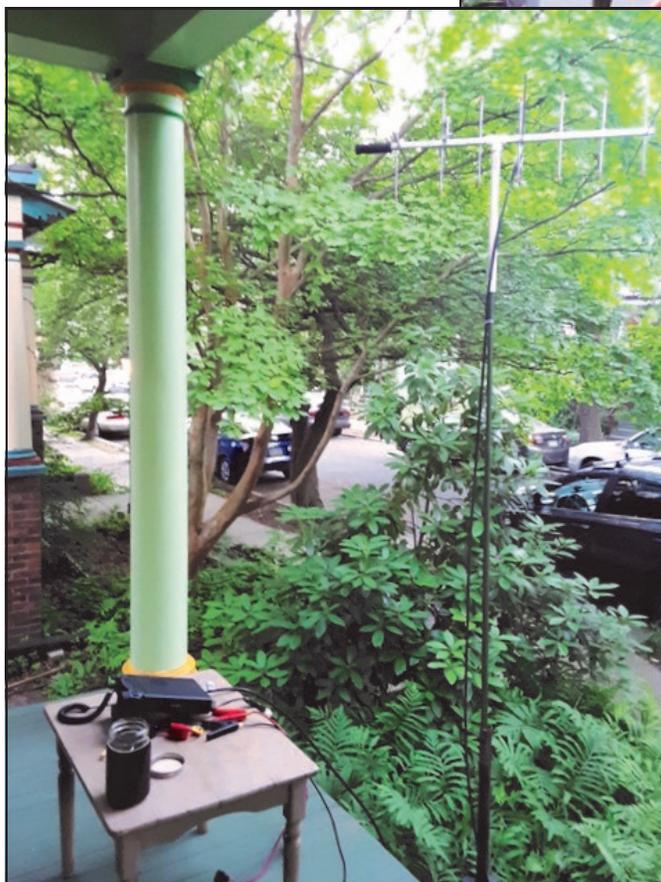
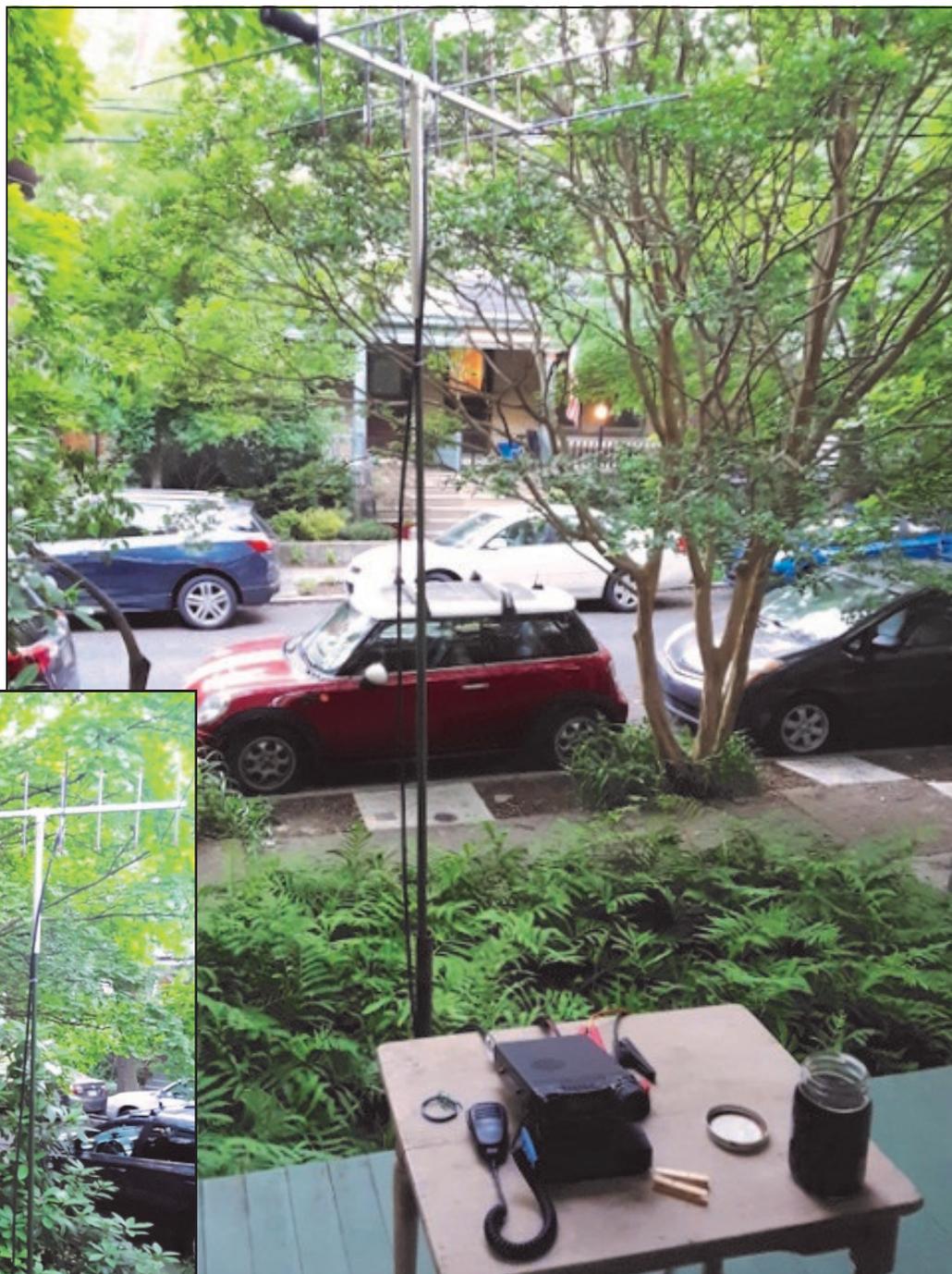
Joe always had a kind word and had worthwhile things to contribute to any conversation. Smart and friendly, always. A good listener. He will be missed. RIP. —Lenny W2BVH

Additional info at :

<http://lifecelebration.tributes.com/obituary/show/Joseph-Frederick-Landis-108486098>

Recent Photos form the QTH of Jim KC3BVL

Lenny,
Here I use Arrow dual band Satellite antenna with FT857 on a small lithium ion battery at front porch of AB3XU here in FM29JW to contact: 2 meter Jerome K3GNC, Dave W2KV, Bob W2SJ and 70 cm Mike WB2RVX. Making use of the nets to get fresh air and test my gear in the age of Corona virus. 73, — Jim



FT8 FLORIDA FUN ON FIFTY.313

(5/10/20) The Spring Sprint was really the first significant chance that I had to use FT8 on 6m. I had briefly set up my 6M omni antenna for the fall sprint, making only 4 digital QSOs. I was anxious to try again, as the reflector reports were that 6m had been open extensively for the past few days. I put up the antenna on Friday morning, using all 4 pieces of my fiberglass military mast for a full 16 feet. I had two pieces of RG8x that I coupled with a barrel connector and tested the SWR which was close to 1:1.

I tuned the transceiver to 50.313 and found it hopping with signals. I was glued to the radio for the next 4 hours, working all over the US and Caribbean with 70 watts.

I had 30 QSOs in the log with grids from Canada, the northeast, central states and south to Puerto Rico. The next morning, I was right back to the radio and things were still hot. I added another 60 contacts to the log. Included were contacts with Packrats Ron W3RJW, Dave W3KM, Vitaly KC3ACQ, Joe K1JT, Steve N3FTI, and Bill AA2UK, and from NEWS, Jeff K1TEO, Don W1FKF and Ron WZ1V.

My hope was that the openings would last into the evening for the sprint. I sat down again at the computer to check on what was happening at 6PM, an hour prior to the sprint. I worked YV5NEA in FK60 and HP2DFA in FJ09. It was encouraging. As the clock hit 7PM, I first worked George WA2VNV who lives close by here in the winter.

He's usually my FN30 QSO running the bands as a rover. I then logged another 32 contacts including multiple grids throughout the Caribbean and Central America in addition to Stan K3IPM on SSB and my last FT8 QSO with Alex KR1ST at 02:21 when the band seemed to close. It was a treat to have the opening extend for the sprint. Rick **K1DS**



I just saved a bunch of money on feedline by mounting my antenna lower.



Sent to Cheese Bits by Warren WB2ONA

Chad (the country) On 6 Meters

120930 0 0.2 1235 ~ CQ TT8SN JK72
123100 -10 0.1 1245 ~ AA2UK TT8SN -09
123130 -7 0.1 1244 ~ AA2UK TT8SN RR73

Congrats Bill!

Gary Crabtree KB8RQ, SK

Below is a copy of a post on moon-net, telling about the passing of one of the worlds greatest 2 meter operators. Gary Crabtree, of Brookville Ohio, KB8RQ had one of the two strongest signals off the moon. Below I posted a picture of his antenna array. I first worked Gary in the June contest of 1984. Since then we have had over 2 dozen contacts, on SSB, CW, JT44, and JT65. The EME contacts were not the typical, almost can hear it, weak signals. The signals were loud, loudspeaker copy, moving the S meter half way up, booming signals! My last contact with Gary was 5 years ago. I am really sad that he is gone. Rest in Peace Gary 73, Russ K2TXB



Dear friends:

It is with heavy heart I share that Gary Crabtree, KB8RQ (age 77) of Brookville, OH is a Silent Key (9 May). A close friend and passionate moon-bounce enthusiast extraordinaire, Gary confirmed 247 DXCC 2m countries (top world score). He was a kind, graceful, helpful friend to all: especially others who shared EME interest. Gary and I shared a common birthday (25 Nov). Those who attended Dayton Hamvention remember the special EME gatherings Gary and Barbara hosted at their home selflessly sharing fantastic food and fellowship. We're going to miss him. When you next operate EME

and orient your antennas toward the moon, please remember our friend Gary. 73, God Bless Dave KJ9I

Gary was a local legend for his EME operations and awesome antennas. He had been in failing health for the last few years but was still as active on the moon as possible. RIP. Tom Holmes, N8ZM

I was also sad to hear of KB8RQ's passing. He was one of the stations a small station (sometimes very small) could count on for an eme contact, often their first. RIP Gary. Jerome K3GNC

In Living Color

"In Living Color", a new online exhibition on the history of color TV can be found at <https://sarnoff.omeka.net/exhibits/show/in-living-color>. Additional pages that are part of the exhibit can be found at the links to the right of the main text.

Map Extensions to the K1RZ / W3SZ Database

For those who haven't seen them there are a great set of short YouTube tutorials on the above subject at <https://www.youtube.com/playlist?list=PLhcWbjH-CpxrCODlEDECRRrED18B4NZ9n>

K1RZ Microwave Spring Sprint Report

Good to get on and check the Microwave bands. As was noted by several the conditions were not up to "normal", but at least there were plenty of us trying to make contacts. My best DX was with Dana VE3DS on 902 MHz CW, and my only contact over 500 km. Thanks Dana. Thanks to Rovers Bill W2RMA, Marco KD3PD and Peter VA3ELE. It is always a special challenge to do the work required to be a Rover and the rest of us really appreciate your efforts. Results: 53 Q's , 10,834 Pts.

Thanks to the CSVHFS for sponsoring this activity. 73 and see you all in the June Contest. Dave K1RZ FM19jh

5 BAND TRANSVERTER BY STEVE AT DEMI

This transverter system looks really nice. Created / designed by Steve at DEMI. Bill AA2UK

Info at http://q5signal.com/index.php?route=product/product&path=70&product_id=99



2M through 1296 MHz

Start of Cycle 25?

A news broadcast segment featuring Dr. Tamitha Skov. The background shows a solar flare on the sun. A text box reads: "As soon as I finished this forecast this active region fires several strong flares including an M1.2-class flare. Solar Cycle 25 has definitely begun!". Below this is a graph titled "GLOBAL (100 ABC)" showing a world map with a color scale for "Deposited Frequency (MHz)" and a bar chart for "Attenuation (dB)".

SUN (Earth)
18 22:41:57

As soon as I finished this forecast this active region fires several strong flares including an M1.2-class flare. Solar Cycle 25 has definitely begun!

GLOBAL (100 ABC)

Dr Tamitha Skov

Sent to Cheese Bits by Phil WF3W

The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from June 1970. Vol. XIII Nr. 6
de K3IUUV Bert
(*author's comments in italics*)

- “**Our Prez Sez**”. Prez Ernie, **W3KKN**, highlighted the club’s plans for the 1970 June VHF contest. The club will be operating from Hilltown, on 50 through 2300 (yes Virginia, we were running 2300, 50 years ago). He described the challenges of the setup, but also listed the benefits that would accrue by members participating (*Most are still valid. When was the last time YOU went to Camelback?*).
 - [ARRL Bulletin NR 271, 5/2/1970](#). The ARRL BOD directed the filing of strong opposition to new repeater restrictions being proposed by the FCC.
 - **Calendar**. Announced the Packrat picnic, 8/9/1970, Fort Washington State Park, as usual (*Did you know that the picnic typically had several hundred in attendance?*)
 - **Membership**. Applied for membership: **WA3IDQ**, Walt; **K3OPC**, John. Visitors at the May meeting included Ron, **WA3AXV** (now **W3RJW**).
 - **220 Activity**. **K3GAS**, Doc, reported the club intercom frequency (221.4) continues to be the nightly meeting place for QSOs and question and answer sessions. The Monday night net garners about 15 stations. “Why not get on. I will be glad to help you.” (*Does the current DMR net provide the same service? Not that I can see. Nor does the club reflector see much use - except for contests. When was last time you were on?*)
 - **432 and UP activity**. Reported by ye author, **K3IUUV**. Regular call-ins to the Monday night net included **K1PXE** (Pete, CT) **K4SUM** in VA, and **K3EAV/1** in Rhode Island. The 432 converter project led by Mario, **K3UJD** (honored by “The Mario Table”) has been very successful. Several new stations are listening,
- and many existing stations improved their hearing ability due to Mario’s efforts. **K2UYH**, Al, now conducts a Sunday morning net on 432, at 10:00. (*Remember that, Al?*)
- **From the Book Rack**. **K3WEU**’s monthly column described a Non-Ham book. Titled “The Great American Depression, 1929 – 1939.” Multiple “facts” from the book were listed by John. An example: One married couple lived for nearly a year in a cave (Cave?), in Central Park. (*You may find these extracts as interesting as I did, in light of the current pandemic impact. Read the extracts in the Cheese Bits issue on the club website.*). (**UPDATE**. *I just ordered a (used) hardback copy of this book on Amazon. Incredible to find a copy of this 1970 book so easily!*)
 - **New Products of Interest to Hams**. An aperiodic article, by **W3NSI**, Lynn. A new series of vacuum relays is available from Dowkey. 3kW rating, with N connectors. No price given. Bud Metal Products released a new line of cast aluminum boxes. Prices range from \$1.40 to \$4.00.
 - **Ladies Night Report**. Held at The Buck Hotel on 5/2/1970. (*Rebuilt, and still a great place*). The 64 people present enjoyed an excellent Roast Beef dinner. Chairman **K3KTY**, John, thanked Stan, **K3IPM** for the many excellent Door Prizes he provided (*Remember that, Stan?*) (*As I’ve mentioned before, why don’t we have this event anymore?*)
 - **Technical Topics**. Two articles of interest were published. “Matching Devices” by Joe, **W2EIF**, described 1/4 wave antenna and feedline matching device design details, with construction information. And **W2AXU**, Jack, published an excellent article on “Power Dividers and Attenuators.” Lots of design and implementation detail. Both articles are still useful today...
 - **Swap Shoppe**. By **W3ZRR**. (*Always nostalgia. Now we use the club reflector.*) From the estate of Lee, **W3MVF**. A lengthy list of items, circa 1970. Included was a collection of Clegg equipment: A Venus 6M SSB transceiver; an Apollo Linear Amplifier; a

Clegg SSB booster (*what was that?*); and a Turner mike. Combined price, \$425. And a Johnson Ranger Viking II from **WA3CND**, Candy for "Best Offer."

- **Miscellany. Thanks to Walt, K3BPP for filling in for me last month.** *Postage for this copy was still a single 6-cent Roosevelt 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 K3IUUV (me), and posted on the website by W3SO, our webmaster. Remember, I have also posted the club Officers history, club Membership history, and Packrat Inventory (updated frequently) on the W3CCX website. These files are password protected, and only accessible to registered members. Have you registered? I hope you enjoyed reading these bits of nostalgia as much as I did in writing the article. If yes, you might let me know. Thanks to those that did.*



thirty, de K3IUUV (K3IUUV@ARRL.net)

6M Spring Sprint Report from K1DY

I went "Old School" this time and it was fun. No FT-8 and no chat. Just called CQ on SSB, answered CQ's, or waited around to jump on someone that was ragchewing(!). Band was in and out for Eskip to 4 land then 9 land. Did manage to work TWO contiguous grids, FN43 and FN55. Thanks to all who got on and to CSVHF for hosting - Bill, K1DY in Maine

Events

For inclusion, please direct event notices to the editor.

VHF Contest - Contest - June 13-15, 2020. See <http://www.arrl.org/june-vhf> for details.

CQ WW VHF Contest -Contest - July 18—19, 2020. See <https://cqww-vhf.com/> for details.

222 MHz and Up Contest Contest - August 1-2, 2020. See <http://www.arrl.org/222-mhz-and-up-distance-contest>

10 GHz and Up Contest Round 1 - Contest - August 15-16, 2020. See <http://www.arrl.org/10-ghz-up> .

September VHF Contest - Contest - September 12-14, 2020. See <http://www.arrl.org/september-vhf> for details.

2.3 GHz and up and Up EME Contest - Contest - September 12 -13, 2020 Details to follow.

10 GHz and Up Contest Round 2 - Contest - September 19-20, 2020. See <http://www.arrl.org/10-ghz-up> .

Gloucester County ARC Hamfest - Hamfest - September 13, 2020 Mullica Hill NJ. Details to follow.

50 - 1296 MHz EME Contest - Contest - October 10-11, 2020. Details to follow

RF Hill ARC Hamfest - Hamfest - October 18, 2020. Sellersville PA. Details to follow.

Pete K0BAK Winner of the May QST Cover Plaque

Congratulations on winning the May QST Cover plaque: <http://www.arrl.org/news/k0bak-wins-the-may-qst-cover-plaque-award>

73, --Alex KR1ST

Bob Fischer

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PWA-Technet: On the Air Swapmeet

This is held 7 to 8 pm on Sunday evenings for the duration of the Summer -- On the PWA repeater; 146.79 (PL 131.8). Stay around for the PWA weekly net at 8pm. Mark **WA3QVU**

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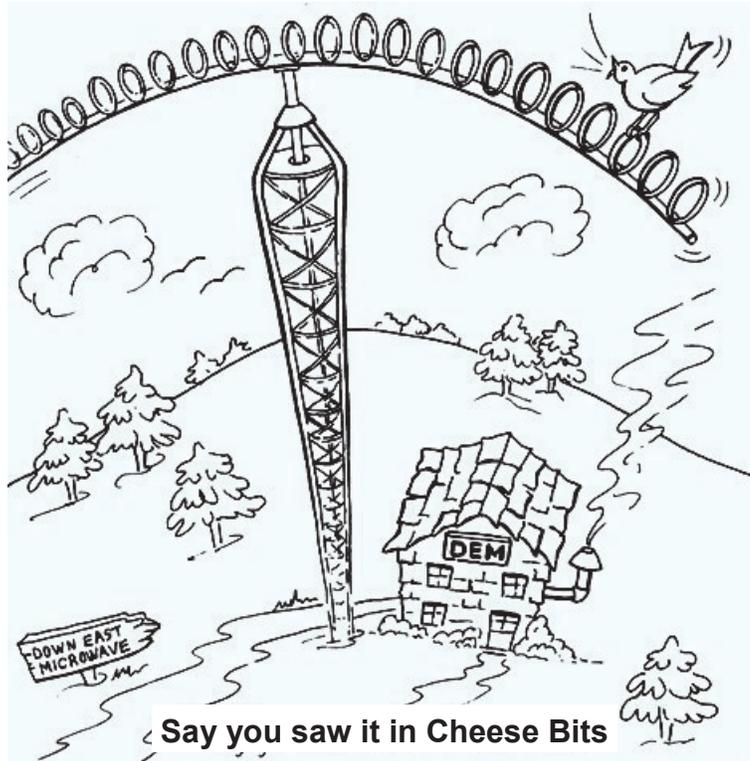
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