



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LXIV

November 2021

Number 11

PREZ

SEZ:

So much for the pumpkin that was supposed to have frost on it last month! Finally about 3 days ago we had the first frost in our area. Even though the frost was late this year, the Packrats January Contest plans are “full steam ahead”. Our contest chairman Mike, N2DEQ will be presenting at the November meeting about contest tips, new contest clock, other helpful info, and where to find it on our website. **All items have been updated** since last year so be sure to check them out and make copies of what **you** want to use. Joe, K1JT has informed us that a new version of WSJT-X will be released about December 1st. It will have the capability of using set up macros when operating **FT8 / FT4 to help move a station up the bands** so we can all put more points into our logs and the club competition category. This will facilitate having all Packrats work each other on every band possible as we have done for so many years. Be sure to see the article elsewhere in this Cheese Bits by Phil, WA3NUF explaining how easy and effective this will be for us.

Many of you experienced our first Hybrid club meeting either in person at the senior center or via Zoom Video conferencing. I hope to see many more of you joining our meetings again in person or via Zoom. This addition also allows our members who live out of the area to attend our meetings. The Hybrid meeting is a work in progress, so please bear with us as we improve the experience for everyone. Please consider

giving Bruce, WA3YUE a hand with this project. There will be times, like in everyone's lives, that Bruce may not be able to make a meeting. He will be happy to explain the set up procedure and we will be labeling all connecting wires and controls to help those who want to help.

This month's **The Prez Shouts Out** goes to Ken, K2WB. He has spent many hours being the host of our monthly meetings, BOD meetings, special meetings, and contest planning sessions on WebEx. He's been doing this for going on 2 years now, using his personal business account. I decided that that this responsibility should not rest on one person. So, with BOD approval, we now have our own Packrats Zoom account. I chose Zoom as members and presenters are more familiar with Zoom and seem to have less problems using it. I guess the pandemic had a lot to do with that, as everyone was on Zoom talking to their families and friends. Hats off to Ken for a job well done!

We had our first 224.900 MHz repeater net on the new WN3A/R repeater that our member Jeff has built and installed making this resource available to all Packrats. Thanks again Jeff! The net is currently running on the first Monday of each month at 6:45 PM with EI, K3JJZ as net control. Last week we had 11 check ins to the new net. Please set up your equipment on the new repeater with a PL of 77 Hz and join the fun. The other Monday's of the month Michelle, KB3MTW continues to run the 224.58 MHz repeater net at 6:45 PM.

Pack Rats **CHEESE BITS** is a monthly publication of the
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Pack Rat Web Site: <http://www.packratvhf.com>

SUBSCRIPTION/ADVERTISING MANAGER:

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

EDITOR:

Lenny Winfield 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 K3IUUV 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

Don't forget that our December meeting will be our annual Holiday Social meeting at the Ben Wilson Senior Activities Center. This is a great time for all with plenty of food to sample from Giuseppe's



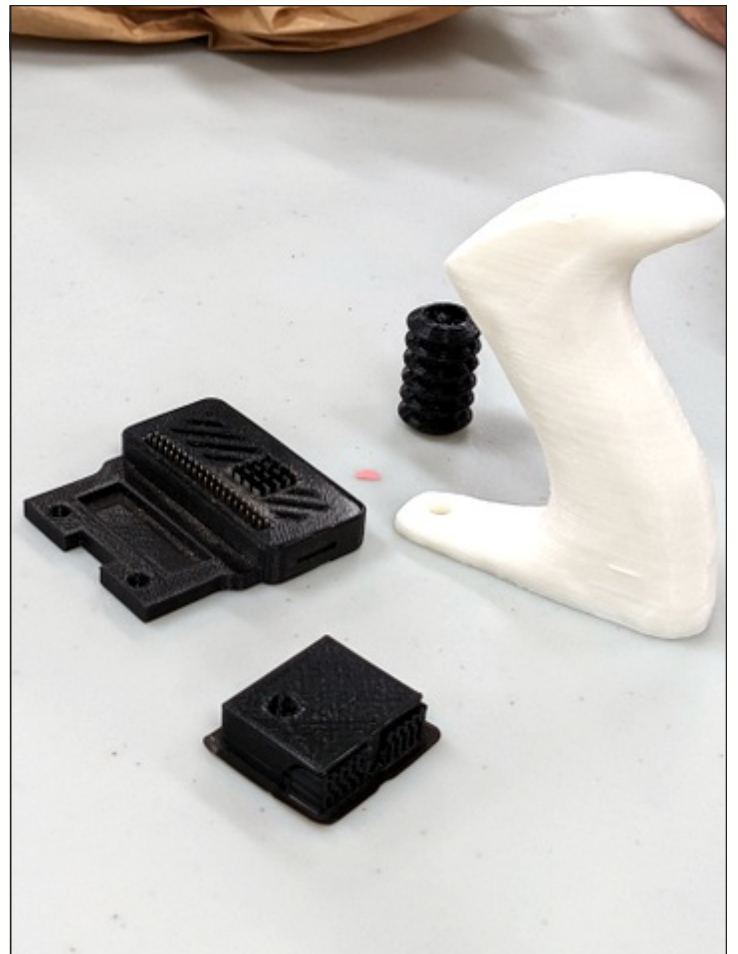
Restaurant next door to the center. More details to follow such as time, etc. We will also have a presentation by Rick, K1DS on his latest experiences with EME. No matter the subject, Rick always puts on a great program that is very practical and doable by our members!

I hope you all have a safe, happy, and meaningful Holiday Season with family and friends this year after having to endure the pandemic last year.

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

OCTOBER MEETING PICTURES







Moving on up with FT8

By Phil Miguelez WA3NUF, with contributions by Joe Taylor K1JT

Ever since WSJT-X version 1.8 was released in 2017, the utility and performance of FT8 has steadily improved with each new revision. At the same time the impact on VHF communications has been even more dramatic, with FT8 completely dominating the activity during band openings and major contests.

WSJT-X has revolutionized amateur radio from VLF (2200 Meters) to 10 GHz microwave. On the downside, the popularity of FT8 has drastically reduced activity on other modes and higher bands during VHF contests such as the ARRL January SS.

Initial Impact of WSJT-X on VHF Contests

The Good

- FT8 is fun to use
- Participation continues to increase
- DX and long haul contacts made possible with even modest stations
- 6M activity and scores exploded
- WSJT automatically sequences and logs the contact

The Bad

- Stations cluster on 6M /2M FT8 leaving SSB /CW spectrum empty
- Activity on higher bands dropped dramatically
- No means to move stations to other bands
- Difficult for Rovers to use and limits scoring opportunities
- Contest scores generally decreased
- WSJT creates confusion on when a contact is really complete

The main complaint by VHF contesters has been the inability to move stations up the bands. For many years, a key contest strategy has been to make a contact on a lower frequency VHF band and then QSY to higher bands. This well-known technique reduces antenna pointing issues and other propagation considerations that make higher frequency contacts more challenging but result in higher contact points and added grids.

While the practice of “QSY UP” was easy to accomplish with SSB and CW modes the efficiency of digital modes came with a cost in the amount of data or characters that can be transmitted in a single message exchange. The number of characters allowed in the free message feature (Tx 5 tab in the WSJT std generated messages) cannot accommodate full call signs + QSY + frequency information in a single exchange. Attempts to manually enter a QSY message during the heat of an active band in the middle of a contest has most often resulted in a partially cut off or unclear outcome.

Band		SSB calling	FT8 freq	CW freq
	Band Code	V	8	W
50	A	AV 50.125	A8 50.313	AW 50.090
144	B	BV 144.200	B8 144.174	BW 144.190
222	C	CV 222.100	C8 222.174	CW 222.090
432	D	DV 432.100	D8 432.174	DW 432.090

BV would designate 2 Meter SSB with a QSY frequency of 144.200 MHz.

The major drawback of this solution is that in an active contest, numerous stations would be landing on the same calling frequency and interfering with each other.

The limited number of characters allowed in the current WSJT free message option restricts adding additional QSY frequency information.

This and many more proposals and concepts were discussed internally by the Packrat board of directors and with Joe Taylor, K1JT the creator of WSJT and a longtime member of the club. More discussion took place at the September in person meeting of the club.

Change is on the way!

WSJT-X version 2.5.3 will include a simple macro capability for QSY requests. When the Tx5 message is transmitted, the macro \$DXCALL will be replaced by the base callsign in the **DxCall** entry field. Thus, if **DxCall** is WA3XYZ/R, the message displayed as "\$DXCALL BV 228" in the Tx5 drop-down list will be transmitted as the free-text message "WA3XYZ BV 228". WSJT-X 2.5.3 is expected to be released on or before December 1, 2021.

QSY messages can be pre-entered in the WSJT-X macro settings window for each band. The text following "\$DXCALL" must have no more than 7 characters, including spaces. One of these characters is the space after the macro placeholder, which is required; a space between "BV" and "228" in the example is optional but improves operator readability. The placeholder macro may be shortened to the minimum un-ambiguous length. Since no other macros are currently defined, \$DX or even \$D will suffice. Thus, an operator active on 50, 144, and 432 MHz might put these selectable macro options into his/her Tx5 drop-down list, conveying implied QSY frequencies for voice (SSB) on 50.250, 144.228, and 432.125 MHz:

\$DX AV 250
\$DX BV 228
\$DX DV 125

To summarize: This scheme uses the 2-character W4ZST code for band and mode, but adds a QSY frequency (in kHz) for the new band.

Band	Band Code	SSB	FT8	CW
		V	8	W
50	A	AV	A8	AW
144	B	BV	B8	BW
222	C	CV	C8	CW
432	D	DV	D8	DW

BV designates the 144 MHz band and SSB mode.

Choosing a unique QSY freq such as 144.228 makes the code BV 228

Tx5 message field = \$DXCALL BV 228

FT8 cont'd...

The example below illustrates the anticipated process for a station that elects to work station W3KM on 6 Meters and then QSY to 2 Meters.

A free message constructed as: "\$DXCALL BV 228" will have the following result:

- You click on W3KM either to answer his CQ or he has responded to your CQ
- Select the Tx 5 message "\$DXCALL BV 228" at the end of the QSO
- \$DXCALL BV 228 will be transmitted as the free-text message "W3KM BV 228"
- W3KM would know that you will look for him on 144.228 using (SSB) voice

Although this is a welcome enhancement to WSJT FT8 operation, it is still strongly recommended that contest stations optimize their operating time between SSB/CW and digital. Employing an 80/20 rule for phone/CW operating time versus digital operating time will maximize your opportunity to work the most stations across all available bands.

The January SS is only two months away. Time to make your plans and make sure your station is ready!

NE3I Coffee Can Vertical

After Hiroki Kato, AH6CY's recent QST article, "The Tin Can Tower Vertical", describing a Home Brew Vertical constructed using ILLY Coffee Cans, I decided to experiment with some ILLY Coffee Cans that I had saved myself. (Hiroki graciously provided me with additional photos and information.) Because the ILLY cans are covered with a non-conductive transparent film, soldering the cans together proved tedious with my small 25 Watt soldering iron. Consequently, I elected to use sheet metal screws, nuts, fender washers and bolts to build my stack of cans, sanding the multiple contact points for conductivity. The ILLY cans proved to provide broad band resonance with stacks significantly shorter than a quarter wavelength. However, my "Nuts and Bolts" version was rather wobbly so, I eventually reduced the number of cans and added a 10 Foot telescoping whip instead. The NE3I Coffee Can Vertical shown covers the entire 10, 12 and 15 Meter Bands with an SWR below 1.7:1 with a single adjustment of the telescoping whip. (Naturally, resonance could be achieved by adjusting an appropriate length telescoping whip without the cans. However, the Five Can stack by itself also provided an SWR of about 2:1 over the entire 6 Meter Band.) The enterprise confirmed the broad band resonance and good shorter than quarter wavelength characteristics indicated in Hiroki's QST Article. In portable tests mounted on a tripod with only three 8 foot "radials", I received good signal reports from Cuba,



Washington State and Wyoming on 15 Meter CW transmitting only 25 Watts. Local 10 Meter contacts were significantly better with the Coffee Can Vertical than the Mobile's HV7A. 73. **Griff NE3I**

Bill Lentz AA2UK, SK

It is with great sadness that I must report we have lost another member and great friend of the club, Bill Lentz, AA2UK. We received the information from his son Jereme, reporting his passing from complications related to cardiac arrest. May he rest in Peace. **Sadly BobW2SJ President**

WILLIAM LENTZ of Leisuretown, Southampton, NJ, passed away on Sunday, October 17th, 2021. He was 63 years of age. Born in Philadelphia, PA, he was raised in Medford, NJ, and graduated from Shawnee High School. William was an avid ham radio operator over the past 55 years and operated predominately under the call sign AA2UK. William was also passionate about boating and enjoyed spending time in the early 2000's on his 43' Mainship, Wireless One.



That is very sad news indeed. I for one will miss his encouragements to push the capabilities of my station further and all the advice he has given me. He was a great resource and mentor.
73, Alex KR1ST

I too will miss Bill. RIP. Bob N2SCJ

So saddened when I read the news about Bill this morning. Over the years, he was so helpful and patient answering questions for me. I for one, was never trained properly in computers and programs. He was my encyclopedia. He was always available when a signal was needed for microwave equipment checks. I will miss his postings of morning contacts with stations many miles away using JT or FT8. I felt his excitement in those posts. Bill you were a pioneer. RIP Herb K2LNS

I'm shocked and saddened to hear the news about Bill's passing. He is a long time friend who was always a major contributor to our club. He was always willing to help others and freely shared his knowledge and skills. He will be sorely missed! R. I.P. Bill. Ray N3RG

Bill was a great mentor. He was always around when I needed help figuring something out. He will be greatly missed. RIP Chris N3PLM

Very sad to hear this. Bill will be sorely missed by his Family, the Club and the VHF and up Community. Our Condolences. Al N3ITT and Carol

Yes, this is sad. Bill joined the club in 1995. He was always eager to help. He loved making QSOs on 1296 and I worked him in FN40 and FM39 and other water grids. I will miss him. RIP Bill. Dave W3KM

Oh I am so sad. I spoke with Bill just a month ago and he seemed to be doing ok after a hospital visit. This is a real shock! I have known Bill since I first worked him in August of 1994. He was always super interested and enthusiastic about VHF Ham radio and we spent a lot of time working together at each of our houses in those early years. In 1997 he got on 10 GHz, using a 200 milliwatt transverter that I lent him, and I worked him from the W2DRZ QTH in FN02. I have hundreds of contacts logged with him, and on every band I have ever worked. My last contact with Bill was last month on September 20. Very 73 Bill, I will miss you. RIP, Russ K2TXB

This is very sad news, indeed. Bill was a model Packrat in many ways, and a dear friend to so many of us. We will miss him greatly. Joe, K1JT

Very sad news. Bill's enthusiasm for amateur radio was hard to beat. As Dave and others have said, he was always eager to help in any way he could. Paul W2PED

Terrible news. I will greatly miss Bill. He was a good friend and kept me informed of what was happening on tropo. So sorry, Al K2UYH

Saddened today to hear of Bill's passing. He was a neighbor here in the Pinelands. He had been so active the past few years and was just hitting his stride with digital VHF/Microwave FT8 efforts. I could always tell when he was on. We were always guaranteed contacts on all the bands. He will be missed by all. Joe KC2TN

That is sad to hear. He was so young. He was a good strong voice on the air and will be missed. Michelle KB3MTW

It has been 5 hours since I read Bob's email. I am still at a loss for words. My first contact with Bill was on 2M, during the January contest in 1997. Since that date I have worked him numerous times on 6M, 222, 432 and 23cm. He will be missed. Sad to hear this news. Al W9KXI

It is with great sadness indeed hearing of Bill's passing. Way too young. Bill was always there to lend a hand when needed. A great Elmer and club member. He will be missed dearly. Mike N2DEQ

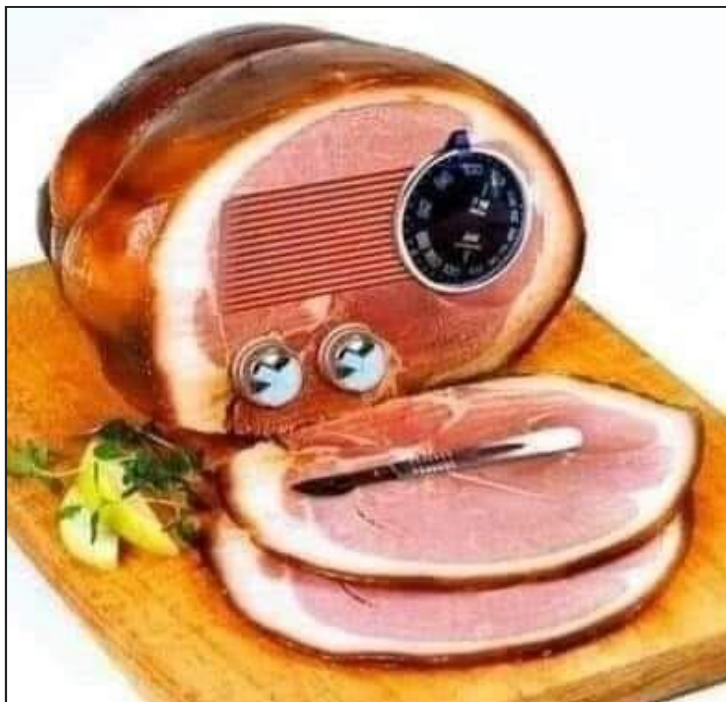
Very sorry to hear this sad news. I have many good memories of time spent with Bill. He was a great guy and I know he will be sadly missed. He was a good friend. Randy Bynum, NR6CA

Really sad and shocking news. A fine person and a great Packrat. Bill always went out of his way to encourage people to extend their range and add bands. QSO's with me on 1296 were a given even though when pointing my way his antennas were looking right into a hill just a couple of hundred yards away. Don't know how Bill did it; he had some great operating skills and energy. RIP Bill. Lenny W2BVH

I am shocked and devastated. Bill and I both came back to Ham Radio, and weak signal work in particular, around the same time early in the 80's. We both started small and I remained such, while he became a giant. He once lent me a plug-n-play 2304 station to help my score and the club's. We spent literally thousands of hours talking to each other over the air on various bands. He had a fantastic wife and family whom I met in person. Geez! RIP Bill. Jerome K3GNC

Wow, so sorry to hear about Bill. We chatted from time to time. The last time was about getting an AM gathering going. I see in his QRZ bio he spent a lot of time on 6, 2 and 220 AM back in the day. Such an inspiration he is. He was really good at hiding pictures of himself too. I can't find a single picture of him. LOL. Stephanie WX3K

Hi Len, Received this from a friend - Joel Levine, CEO of RFMW. Great holiday picture. Thought you would enjoy it. Phil NUF



VHF / UHF Transceiver Performance

Here's a YouTube video of Rob Sherwood NC0B discussing all the criteria used to measure VHF / UHF transceiver performance. Rob has been making lab quality measurements of ham rigs for many years and posting the results to a list on the internet. His observations and criticisms are taken very seriously by all manufacturers, and are often used to improve features and performance of commercial rigs. Just to summarize, commercial VHF / UHF rigs are 15 to 20 years behind HF rig performance (this doesn't include transverter based radios). See <https://youtu.be/lioApKRecl>. Discussion of the VHF and UHF rig performance starts around 45 minutes into the presentation and run almost to the end. Very enlightening and good food for thought. —W2BVH

What is a valid QSO?

This question is being discussed a lot lately, especially with respect to WSJT- FT* Q's. For one such discussion see <https://www.amateurradio.com/what-is-a-valid-qso/>

The Legend of "Apple"

I've been attending luncheons for the last 10 years or so with Al K2UYH and 10 –12 other technologists. Until his passing a couple of years ago Roger K2SMN was the "chairman" of the lunch meeting. As I understand it, this meeting has been going on for over 40 years with a varying cast of characters, though always with Al and Roger.

Well at last week's lunch meeting K2UYH related this story about K2SMN: It seems that Roger was building and selling 8080 based microcomputers going back to the early 1970's. Roger was a huge fan of the Beatles and he decided to call his computer company Apple Computer or Apple Labs or some such in honor of the Beatles record label Apple Studios.

At a computer show in New Jersey, in the early '70s, Roger happened to be sitting at lunch with a couple of other attendees having a casual conversation about computers and about each other's companies. At some point during lunch, these two "Steves" (Jobs and Wozniak) told Roger they were thinking of naming their company "Apple" and would Roger mind it if they used the name also. Well Roger thought about it for a short while and told them sure go ahead. When lunch was finished, they asked Roger if it was OK if they put using the name in writing and would Roger sign off his approval? Roger said sure. But not one of them had a blank piece of paper. So one of the Steves wrote out the agreement on a paper napkin, and Roger signed it.

So I guess (if all this is accurate), somewhere in a file cabinet at Apple HQ in California, is a napkin with Rogers signature on it allowing the Steves to use the name Apple Computer. —W2BVH

Ralph WR3P suggests we check out the Space Weather App available for download at <https://www.spaceweatherapp.com/>. There are versions for Apple, Microsoft and Android. Per Ralph, "The third tab on the bottom gives you a northern polar image of the aurora, and when you pull it down it switches to the South Pole, I would recommend cycling it if you are checking for fast updates so info is current."

KØBAK/R June 2021 VHF Contest 2nd Place Atlantic Division

Congrats Pete!



Active Probe

If you need to take measurements of nodes in a rf circuit without having the measurement disturb the operation of the circuit, a high impedance, low capacitance active probe will help. The probe at https://transverters-store.com/active_probe.html might just fill the bill. It has an output impedance of 50 ohms so it will plug right in to your spectrum analyzer. And it works up to around 1 GHz.

And if you don't have a spectrum analyzer, there are quite a few of them that have become available for very reasonable prices in the last few years. As just one example type "TinySA" into Google or Bing. These instruments go for around \$50.

The active probe will set you back another \$21.

—W2BVH

Crystal Radio DX Contest

Believe it or not there are enthusiasts out there doing AM Broadcast band DXing using crystal radios, and achieving some good results. There's even a DX contest these folks participate in. For more information about this take a look at https://www.amateurradio.com/the-crystal-radio-dx-contest/?awt_a=4inN&awt_l=MiwRc&awt_m=3duoicybEXrzbnN or type Crystal Radio DX Contest into Google / Bing. There are tons of resources out there.

The cost of entry into this activity is close to zero. Except possibly for a 300—400 pf variable cap, you probably already have everything you need to build a receiver. And if you have a HF dipole, it should serve quite well as an antenna for BCB. Just tie the two conductors of your coax together and you have a Marconi antenna

—W2BVH

DB6NT 9cm Transverter Mods

At this point, it looks like the best we can hope for on 9cm is being moved down from 3.456 GHz to 3.40 GHz (at worst we'll be kicked off 9 cm completely). Al, K2UYH made some inquiries to Michael DB6NT about moving current 9cm transverters down in frequency. Michael responded, and the results are not encouraging. It's not impossible but it would be hard.

Here is an excerpt from the email K2UYH got from DB6NT: "Unfortunately, I can't help much with the conversion of the transverter. The company has no more transverters for the 9cm band to sell. The reason for this is the delivery discontinuation of many parts such as semiconductors and helix filters, etc. Due to this situation we no longer have the parts required for the frequency change. These changes are also very difficult! In general the company has never offered or carried out these modifications for customers either.

Please find enclosed the documents of the MKU 34G2 and MKU 34G3 for the frequency 3456 and 3400. You can see the differences and make the required changes. The software for the PLL is not available, sorry.

I have been retired for over four years and no longer work for the company. Nevertheless I wish you all the best and success for changing the frequencies of the transverters! I hope I could at least help a little to solve the problem. I'm sorry that I'm not able to send you better news."

I have additional documentation DB6NT forwarded by K2UYH. I can send it to you if interested. W2BVH (lennyw@comcast.net).

The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from November 1971. Vol. XIV Nr 11
de K3IUV Bert
(author's comments in italics)

“Our Prez Sez”. Prez Don, **W3CJU** commented on last month’s speaker *(happened to have been me, K3IUV)* and the presentation on the Apollo 15 Color TV system. He reported that the club treasury is now on a sound financial basis, thanks to the diligent efforts of the officers and directors. He also noted that “the contest is only eight weeks away, so get busy on that ‘put off’ project.”

From the Book Rack. Paul, **K3WEU**’s monthly column covered the book “Computer Circuits and How They Work,” by Byron Wels. \$7.95 hardbound, \$4.95 paperback. 192 pages and 121 illustrations. In Paul’s words “Here’s the book that explains the inner workings of modern computer – computer circuits and how they work.” *(What would the author think of where we’ve come in 50 years?)* Four main sections in the book describe the language and architecture, and then circuits and applications. Paul gave it an excellent rating, and reminded us that “check into the net 4 times and get a free book!”

SJRA Hamfest report. Dampened a bit by rain, but still had a good attendance. The swap shop area was very busy, “with a lot of gear changing hands.” The calls of 14 Packrat attendees were listed *(I noted my call there)*. And the calls of six Packrats were listed as Door Prize Winners.

Letter Received. A letter was received

from Don, **W3LUW**, writing for the Suburban Amateur Radio Club. He pointed out that a recent FCC Rules clarification permits a visiting amateur to operate a station using his own call, identified as “portable.” Members of his club have received complaints when operating this way. While it was previously not legal, it now is permitted, and he wanted to have the fact publicized. Copies of the pertinent rules and regulations were provided by Jack, **W2AXU**, and appended to the article.

2 Meter / 220 / 432 Report. Joe, **W2EIF**, reports the September contest conditions were poor due to heavy rains over the entire East Coast. He heard nothing to the West except **VE2DSS** from Toronto *(not a bad contact)*. On September 28, a bootlegger was heard, pretending to be **WA5OSN**. *(Bootleggers used to pop up occasionally. Is this still a problem?)* A large band opening occurred on September 30th. Two, 220, and 432 were wide open to Michigan, Ohio and VE3 land from 8pm to 8am the next morning. Many locals worked new states on the three bands. On the 24th, an aurora opening on 2-meters let Joe work **K9ZNK** on CW in Indiana, and **W9YYF** in Chicago on SSB. And on the October 18 net night, another opening provided contacts with **W1YTW** in Maine and **W4FJ** in Virginia.

New Products of Interest to HAMS. From Lynn, **W3NSI**. 1) A 2-meter preamp is now available from Hale Electronics, as a kit (\$9.95) or a finished unit (\$13.95). Small size (1” x 3” x 5/8”) should permit mounting in most receivers. No performance specs

given, but "satisfaction guaranteed or your money back!" 2) A Digital Multimeter from Anaconic features a claimed accuracy of 0.01%. Price was given as \$290. (*I doubt that they sold very many. A far cry from the \$1 ones now available from Harbor Freight.*) 3) Regency announced a new 2-Meter FM Transceiver available for 117vac or 12vdc operation. Features 8 crystal-controlled channels. Price \$349.

Calendar. November 20, second indoor meeting, and the program will be "Antennas." "A panel of experienced club members will present various aspects and information about antennas." Discussion will include "how to correct your problems in time for the January contest!" November 13, QCWA dinner at The Buck Hotel. Reservations are available from Harry, **W3CL**.

Swap Shoppe by W3ZRR. (*Always nostalgia. Now we use the club reflector.*): For sale by Ray Smith, **W0GXJ** (a subscriber), a Swan 250 6-Meter transceiver with power supply, \$200. And from Lloyd, **K3ZSG**, a model 15 Typing reperforator and a frequency shift converter (*remember hanging chads?*). No price given. From John, **W3CXU**, a triband 10-15-20 beam and a VSWR bridge. No price. Last, a "dealer" ad from **WA3KNM** listing a variety of parts and rigs, with "prices very much lower than surplus."

Ads. *The November 71 issue included 12 business card size ads, plus the half page cover ad from club member Ham Buerger (Drake TR-22 for \$199.95. If you'd like to join them currently, contact the ad chairman, Bob, W2SJ.*

Miscellany. *Postage for this issue was a single 8-cent Eisenhower stamp. 6 double sided, 8-½ x 11" sheets). As usual, many "folksy" comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, or for more detail on 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.

EME - 50—1296 MHz – Wknd 2 - Contest - November 20-21, 2021. See <http://www.arrl.org/eme-contest> for details.

EME - 50—1296 MHz – Wknd 3 - Contest - December 18-19, 2021. See <http://www.arrl.org/eme-contest> for details.

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/>

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. —W2BVH

Bob Fischer

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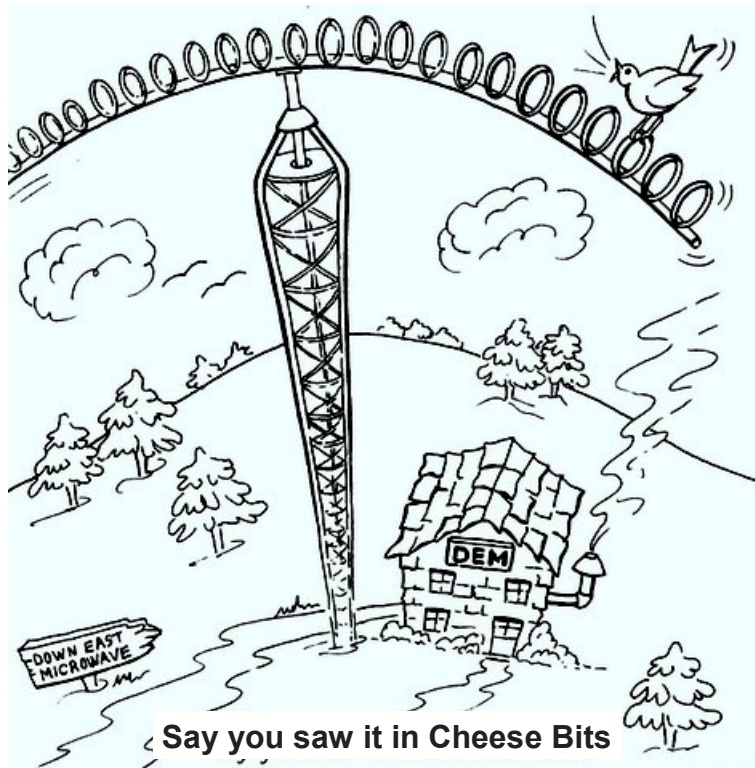
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