



# CHEESE BITS

**W3CCX**  
CLUB MEMORIAL CALL

ARRL  
Affiliated  
Club



Volume LXIV

March 2021

Number 3

## PREZ

## SEZ:

The weather forecast looks good for the next few weeks with a warming trend moving toward hopefully saying goodbye to the snow, ice, and cold rain of February. Spring starts just a couple days past our March 18<sup>th</sup> meeting. Speaking of our meeting, we have a great one planned: Al Katz, K2UYH will be presenting "EME Made Easy". Follow Al's easy plan and you will question why you never tried EME before!

You'll wonder how this relates to ham radio and if SJ has finally gone nuts: I was thinking of a song by Barbra Streisand that some of us will remember. "What are you doing the rest of your life"... The lyrics continue, "North and South and East and West of your life". Now the compass points are starting to sound like ham radio! Realizing it would not be fair to ask for your ham schedule for the rest of your life, "I have only one request to make of your life"...What could you be doing in the "North" the weekend of June 11<sup>th</sup> thru the 14<sup>th</sup>? Some of us are going to Camelback for the June contest! Do **you** want to join in on the fun? This year is looking good so far with many of us having completed our vaccine shots and the number of new COVID cases trending downwards. Next to the January Contest, this is probably the largest effort our club puts forth each year in contesting. If you have not operated on top of a mountain at 2,035 ft ASL, a full 360 degree view to the horizon, with 5 towers, equipment for 10 bands 50 MHz thru 10 GHz, and good antenna systems, **you**

**are missing a lot!** Just the scenic view alone is worth the trip. This opportunity is a dream come true if you normally operate VHF+ with HOA or similar restrictions, you're in a deep valley, or only have compromised antennas. Last year we worked on many time saving improvements to simplify set up but could not go to the mountain due to COVID restrictions. The contest planning committee has a trip scheduled to our storage facility in early April to go over the equipment in the club trailer & bus to verify we have everything loaded from last year. Did I mention that the trailer and bus both have air conditioning for your operating pleasure? It sure beats the Ryder trucks we used to rent. So join the gang for the June weekend, come up and help to set up, or just come up for a day or two to relieve the operators and get on the air for a few hours. If you can't come up, please get on the bands you have at home, and work us from W3 Charlie Charlie Xray, FN21HB! You owe it to **yourself and to the club** to share in the fun and camaraderie of the event.

Be sure to check your equipment at home by checking into our Monday Night nets each week on our 224.58 FM repeater net, the DMR net on the 8804 talk group, and our 50 thru 432 SSB nets. Net times and frequencies are published on our website at [www.W3CCX.com](http://www.W3CCX.com), as well as reminders each week on the Packrats email reflector.

The Spring Sprints are starting up with the 2M sprint on April 5<sup>th</sup> from 7-11 PM local. Other Spring Sprints are listed under "Events" in this

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Bill Shaw K3EGE

**PACKRAT 222 MHz REPEATER - W3CCX/R**

222.98/224.58 MHz (PL 136.5) Hilltown, PA

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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](http://w4dex.com/uhfqso) or **Packrat Chat Page**

**W3SZ.COM**

Visit the Mt Airy VHF Radio Club at: [www.packratvhf.com](http://www.packratvhf.com) or [www.w3ccx.com](http://www.w3ccx.com)

issue of Cheese Bits. The Sprints are another good way to check your equipment and antenna systems.



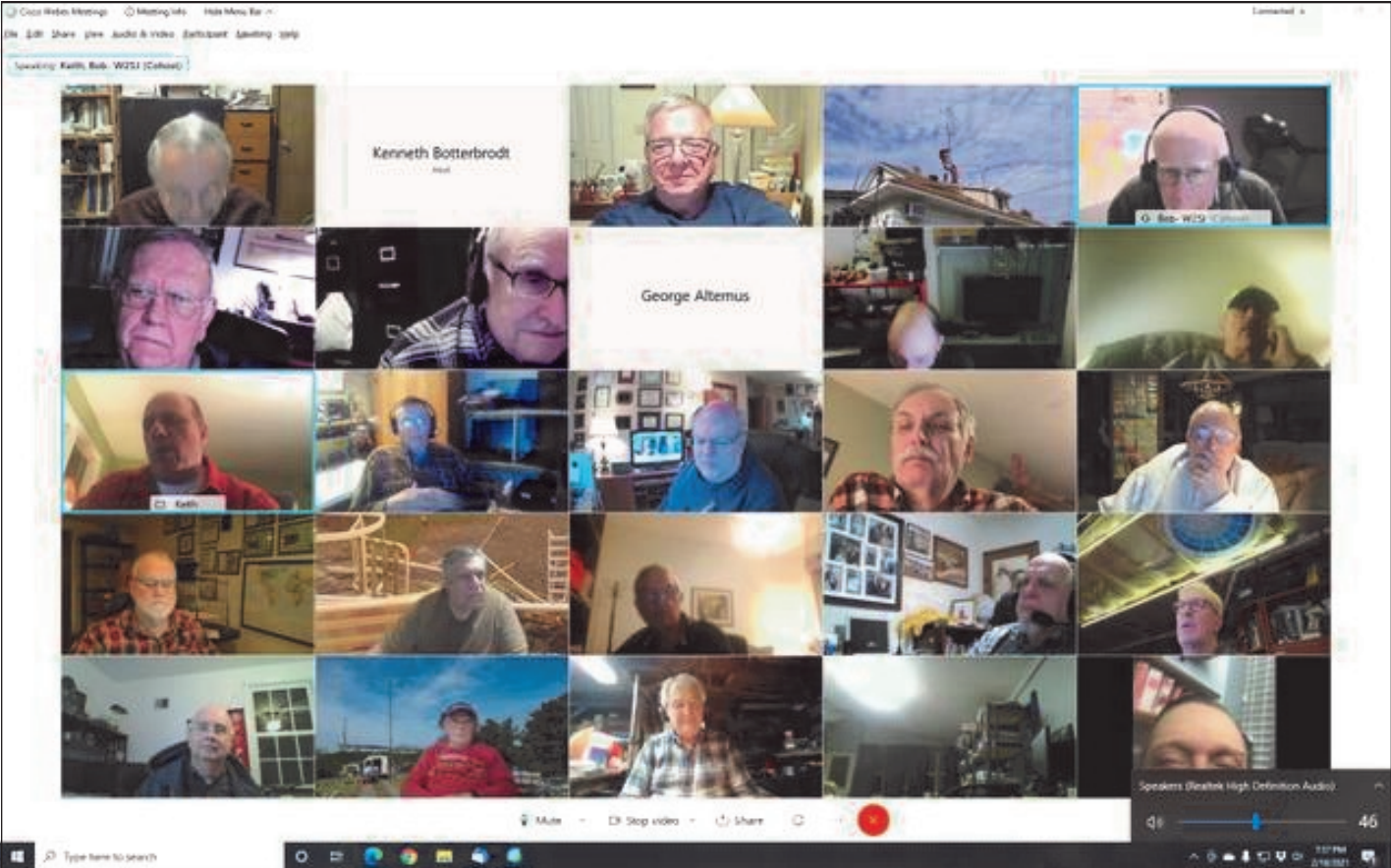
The April 15<sup>th</sup> meeting will be our annual ARRL Night with visiting ARRL officials bringing us the latest news from the League. Packrats Awards will also be presented at this meeting.

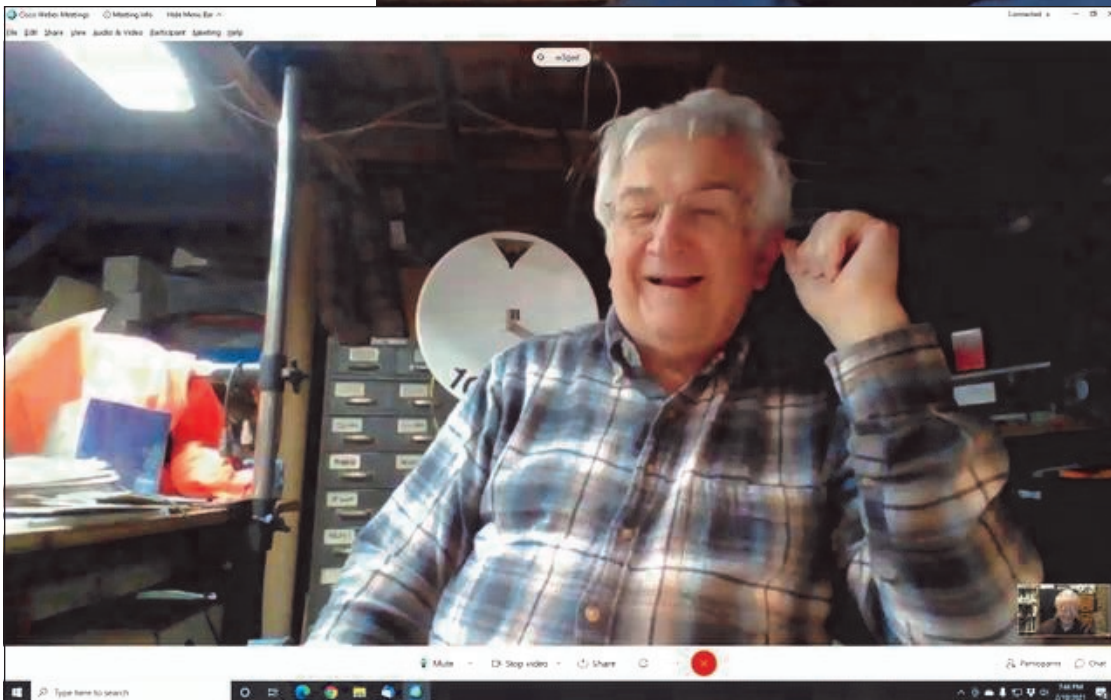
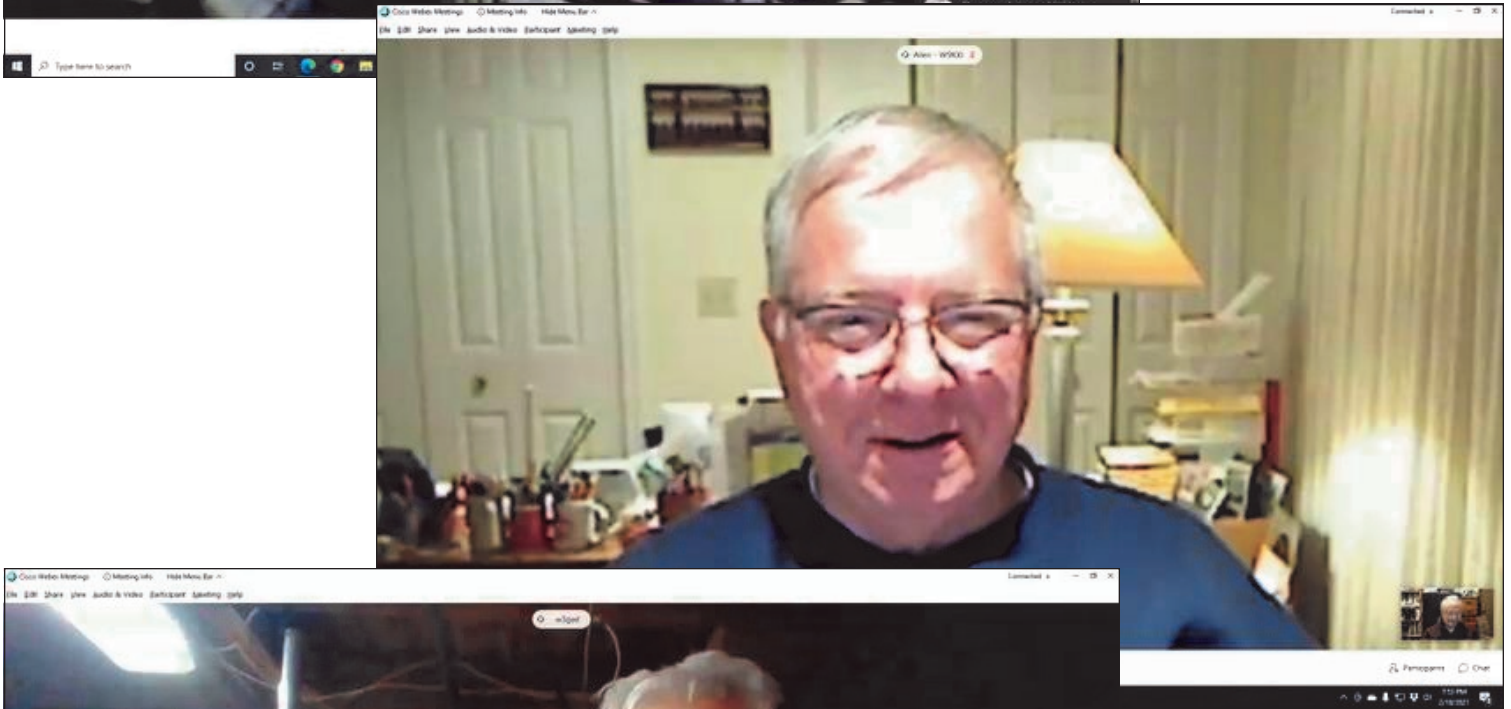
The Pack Rats election of officers will be in June as usual. George, KA3WXV has stepped up to be on the nominating committee. We are in need of two more members for the committee. It's a nice way to give back to the club. The job is not difficult, or very time consuming and will make you proud to have served. Please let me know if **you** can help the club in this capacity.

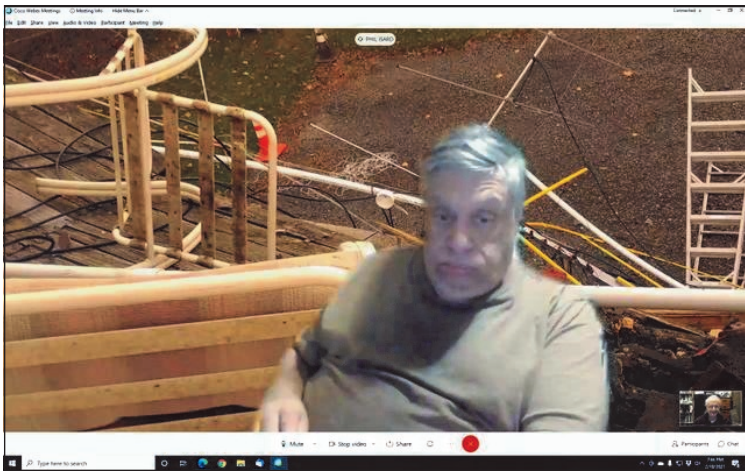
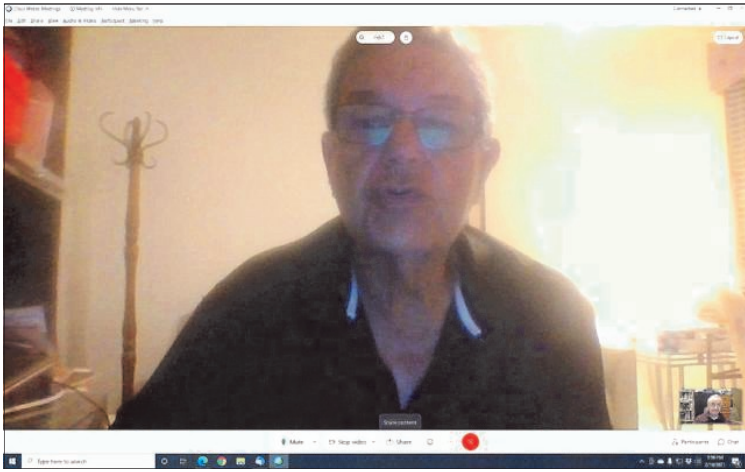
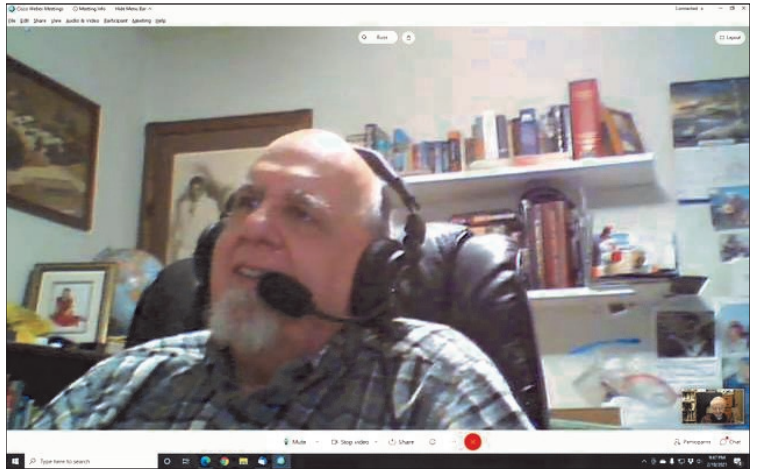
Meanwhile, finish a project on the bench, keep one ear "listening for the weak ones", and the other on the "Magic Band"!

**Vy 73,**  
**Bob W2SJ**

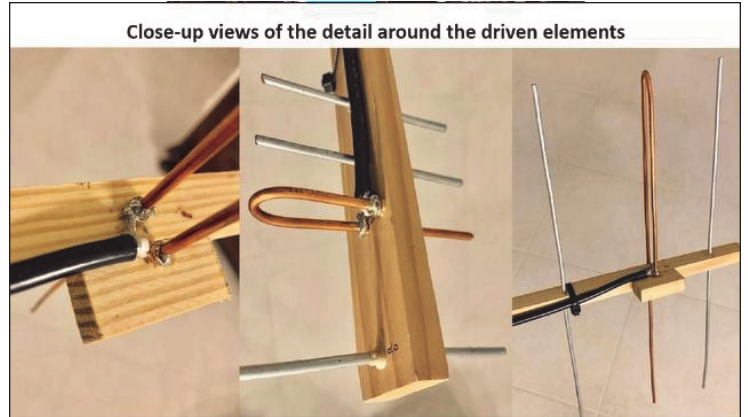
# FEBRUARY (WEBEX) MEETING PICTURES







# Homebrew Night Pics



Most Practical - Rick K1DS for his VHF and UHF antennas, which were fabricated from simple materials readily available from the hardware store.

## WA3EHD Switchbox Rear View



Best use of the item(s) from the Mario Table - Jim WA3EHD. A switch box for connecting his key to any one of several radios. A very interesting aspect of this project was that he used this project to teach his grandson soldering skills.

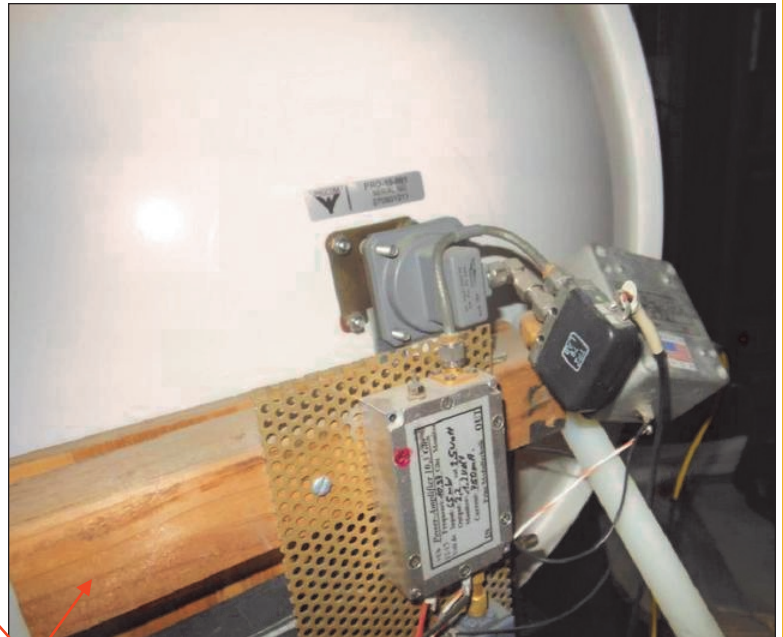
Cheapest (aka least costly) - Mike - N2DEQ A switch box, utilizing parts from his junk box.

## Antenna/Rig Switch

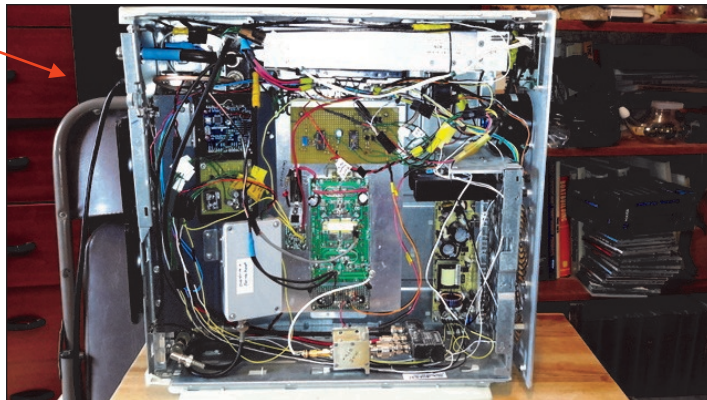


2021 Pocket Home Brew Night

4



Most Ambitious - A tie. Doc W3GAD for his portable 10GHz set-up. Lenny for his 432MHz (350W) solid state amplifier.



Tnx to judges: AI W9KXI,  
Russ K2TXB and Steve  
W1SMS.

Thanks AI W9KXI for captions

## Walkie Talkie Opened



Best QRP - Griff  
NE3I Resurrecting a  
antique 11M AM walkie  
talkie and using it on  
10M QRP CW

# 6M Beam Installation at KA3FQS

By Tom KA3FQS

For some time I had been using a 6 m beam that I picked up at a ham fest. Beyond that I don't know much about its origins such as who manufactured it or anything about its gain or pattern except that it worked ok and was an improvement over the Moxon I had been using. Early this fall I had scheduled another round of rotator roulette trying to get my Alpha Spid RAK to operate reliably and thought that it might be a good time to switch to a known quantity for a 6 m antenna. So I ordered a DSEJX6-50 from Directive Systems and Engineering. This antenna has a longer boom and two more elements than my old 6 m antenna so it should produce more gain.



Scheduling of tower work revolves around on my brother's schedule as he usually has access to a man lift and an 18 year old grandson who works out. So my brother called saying that he was available on the 25th of September. This required a call to Directive Systems to expedite delivery of the antenna. They did a wonderful job of getting the antenna to me a day before I needed it, many thanks to them. My brother picked up his grandson and the man lift and headed to my house.

After setting up the man lift my brother removed the old beam from the tower while his grandson and I assembled the new antenna in the garage.

The next task was to swap out the old reliable HAM IV with the new Spid RAK. This required lifting the mast. My brother likes the brute force method of doing things so instead of using a jack or winch he summoned his grandson and they both lifted the mast with all of the antennas on it out of the old rotator and lowered it into the new rotator. It's nice to be young and strong.

Next it was time to install the new DSEJX6-50. This again was a two person operation as the antenna is a good bit larger than the old one.

My wife, Melanie, even went aloft to inspect things. I was a little disappointed that she was more interested in a squirrel nest she saw in a tree than she was in the new antenna.



So how did it work? Ray gave me an unsolicited good signal report on the following Monday night net, so it seems to work well. Also the Spid RAK and the Green Heron controller are playing together nicely.

My sincere thanks to Green Heron Engineering for going above and beyond to get the Spid RAK working. To Directive Systems and Engineering for the expedited delivery of a really nicely made antenna, to my brother





and his grandson, Aiden, for their labor, and to my wife for putting up with all of this.

**KA3FQS**

## Astron Quick Fix

by Chris N3PLM


Many Amateur Radio operators use Astron power supplies. They have been around forever and come in many sizes. I myself have 4 Astron RS-35 power supplies in my shack. I use 3 and one is a spare and used for testing. The problem is that as they age, they begin to get noisy at start up. Sometimes even a big bang.

One of mine will even dim the lights and trip the computer's UPS at times. So with a little research and some help from other Packrats, here is the solution.

You will need an old fashion solder type terminal strip ( see below ).



And you will need an Inrush Current Limiter from DigiKey or Mouser.



SL22 2R515		<a href="#">Datasheet</a>
Digi-Key Part Number	570-1047-ND	
Manufacturer	Ametherm	
Manufacturer Product Number	SL22 2R515	
Supplier	<b>Ametherm</b>	
Description	ICL 2.5 OHM 20% 15A 22MM	
Manufacturer Standard Lead Time	8 Weeks	
Detailed Description	Inrush Current Limiter 2.5 Ohms ±20% 15A 0.866" (22.00mm)	

Mount the Inrush Current Limiter in the incoming power line right after the fuse. Solder it to the terminal strip inserting it in series with this line. The Inrush Current Limiter causes a slow buildup of power as it heats up. Once warm it allows for full voltage and current flow.



The time involved to come up to full power is hardly noticeable, but the noise and banging are completely gone.

One Power supply done and three to go.

Thanks to my fellow Packrats, another problem solved.

Hi Lenny,  
Ray, N3RG gave me a small box with some old QST magazines and said "take this to the next meeting and put the box on the Mario table". I finally opened the box and looked through the QST's a few weeks ago. The most interesting to me was the June 1919 issue. The cover was an announcement of the "lifting of the Federal Amateur Receiving restrictions during the World War". The next sentence stated "we have been assured by the Navy Department that the restrictions on Amateur Transmitting will also be lifted as soon as the President of the United States announces that a state of peace exists".

The other treasure was inside that same issue. A story by the Editor at that time, C.D. Tuska describes the arrival of a package and letter from "The Old Man". If you remember your ARRL History, "The Old Man" was Hiram Percy Maxim, 1st president of the ARRL. Even more fascinating, realizing this was 1919, was the way the editor spun this tale of wit with caution, and not to be too graphic. **3, Bob W2SJ**



## RE-OPENING NUMBER

### Greetings, Amateurs!

**T**HE AMERICAN RADIO RELAY LEAGUE extends its heartiest greetings to the wireless amateurs of the country on the happy occasion of the lifting of Federal restrictions on amateur receiving. We have been assured by the Navy Department that the restrictions on amateur transmitting will also be lifted as soon as the President of the United States announces that a state of peace exists.

After more than two years of absolute prohibition of all forms of amateur wireless work, the news that we are to be permitted to resume operating comes as one of the big things resulting from the closing of the Great World War. It makes us appreciate what it is to be Americans—freemen of a great Democracy. It also causes us to pause and with reverence recall the supreme sacrifices that many of us have been called upon to make that we now might continue to be freemen.

Our own record in the great struggle for liberty is something we can regard with pride. Our country had need of us amateurs in the early days of unpreparedness and the need was very great. It is for us to stand and say that almost every single one of us who was of military age and in good physical condition responded to the need.

The American Radio Relay League is an organization of us amateurs, for us amateurs, and by us amateurs, and to all interested in amateur wireless whether they be members of our organization or not, we extend the hand of good fellowship. We believe that amateur wireless is to be one of the great institutions of the future. We hope that we may be able to be of some assistance in carrying it to its great destiny.

THE AMERICAN RADIO RELAY LEAGUE, Inc.  
Hiram Percy Maxim, President.

JUNE, 1919

PRICE 15 CENTS

## THE WOUFF HONG

Honest fellows, we thought we had shell shock when we opened a package recently received from "The Old Man". Both a letter and package came in the same mail, and never having been honored before with a package from him, and hoping it might contain something new in the way of a receiving amplifier, we opened it first. Then followed the shell shock symptoms, and we leave it to the fraternity at large to say whether the Editor was not justified. On another page, we show an illustration of what the package contained. It was a WELL PRESERVED AND AN ABSOLUTELY AUTHORITATIVE SPECIMEN OF A WOUFF HONG. Attached was a card bearing the inscription, "To Editor C. D. Tuska, from The Old Man". We confess a distinct and uncanny chill in our midst when we regarded the thing. In fact, we have not yet entirely recovered our customary poise and self-confidence. It was shown to the Board of Direction at their meeting on May 3, in New York City, and each face noticeably blanched when the

awful Wouff Hong was pulled forth and laid upon the table.

From several of the old man's stories, we judge that this instrument is used in some of the Middle Western States upon users of spark coils, and creators of unnecessary QRM. If this is the case, we shall make it our business to continue to reside in the East. We do not know which end of the Wouff Hong one lays hold of in order to operate it properly, but we suspect it is the smoother end, which has evidently been fashioned from an old hammer or hatchet handle. If this is the end grasped, we leave it to the imagination what is done with the other two savage looking terminals. The Editor invites comment as to the use of this weapon, especially from any one in the Middle Western States who may have been operated upon by it. For the present, it is framed and hangs in the Headquarters Office of the American Radio Relay League at Hartford, Connecticut, as a horrible example of what awaits amateurs who persist in causing unnecessary QRM.



THE ORIGINAL WOUFF HONG.

### **Weak Signal, FM Only**

I did an interview with John KM4KMU this month. John operates from points in Northern Virginia in the FM Only category. That includes operation from points within the National Radio Quiet Zone. John gets on SSB as well to give out points and asks ops to try FM to give him points and I am pretty sure he has worked a number of the members.

He isn't a rover but operates from his vehicle. If you haven't seen it, think rover designed for off roading. If you haven't heard him speak, he is very enthusiastic and entertaining. He scored 18K points as a FM only station this past January.

Below is a link to the Ham Talk Episode where I interview John. The interview is about 35 minutes long starting just past the 26 minute mark in the episode.

[https://www.youtube.com/watch?v=m0rgaH\\_z3HI](https://www.youtube.com/watch?v=m0rgaH_z3HI)

Also in the episode Greg N5XO talks a bit about weak signal and gives some demos but most of us have been there and done that sort of thing. M'Lisa KI5ICQ brings in some viewer questions. 73, **Andrea K2EZ**

## ***Ham Radio Signals From Mars***

Around the world, ham radio operators are doing something once reserved for national Deep Space Networks. "We're monitoring spacecraft around Mars," says Scott Tilley, of Roberts Creek, British Columbia ". So starts an interesting article on the Space Weather website. See <https://spaceweatherarchive.com/2021/02/16/ham-radio-signals-from-mars/>. See also <http://www.arrl.org/news/british-columbia-radio-amateur-copies-signal-from-mars-orbiting-satellite>.

Thanks AI, W9KXI for the reference!

WBCQ is an international shortwave broadcast station located in Monticello, Maine, USA. They broadcast on 7.490 MHz, 9.330 MHz, 5.130 MHz, 3.265 MHz, and 6.160 MHz. Interesting short videos of their huge 200 ton rotatable broadband antenna can be found at <https://youtu.be/jQC52JI497Y> and <https://youtu.be/43IPs4GdIKQ>

## ***Parabolic Dishes with Offset Feeds***

An interesting 32 slide presentation (as a PDF), on parabolic reflectors with offset feeds can be found at [http://www.ntms.org/files/Nov2015/Fun\\_with\\_Off-set\\_dish.pdf](http://www.ntms.org/files/Nov2015/Fun_with_Off-set_dish.pdf). It includes many useful URL's including an antenna calculator applet and some material by W1GHZ. Well worth browsing.

Packrat Paul WA3QPX, who normally does not QSL via LOTW has done so for Conrad PA5Y and Alex DL1KDA, giving them Delaware as their 50th state for WAS via EME. In the age of COVID it is hard to get to a place with WAS QSL card checkers in EU (or for that matter anywhere).

Chris PA2CHR has documented some of his EME DXpeditions as YouTube videos. They can be found at (For IK0) <https://www.youtube.com/watch?v=N6OriB4SMcM> , (For TK) <https://www.youtube.com/watch?v=QDA-s--wVR0&t=2s> and (for IK7/IK8) <https://www.youtube.com/watch?v=WwHdQxRAvQQ&t=166s>. Tnx Paul WA3QPX for the info.

## ***Novice Rig Roundup***

The "Novice Rig Roundup" operating event runs March 6th (yesterday) through March 14th. Maybe it's time to dust off the old DX-20, Ameco or Eico rig (or ARC-5) and give it a try. Details of the event are at <http://www.novicerigroundup.org>

## ***Onboard Video of the Perseverance Rover***

An article promoting and describing a video of the descent of the Perseverance Mars rover can be found at <https://spectrum.ieee.org/automaton/robotics/space-robots/onboard-video-of-the-perseverance-rover-landing-is-the-most-incredible-thing-ive-ever-seen>

## ***Pushed to the limit: A CMOS-based transceiver for beyond 5G applications at 300 GHz***

Scientists at the Tokyo Institute of Technology have come up with some new CMOS rf tech. A brief article can be found at <https://www.sciencedaily.com/releases/2021/02/210205085712.htm>.

Maybe this can be applied to new Ham bands some time in the near future.

Thanks Phil WF3W for heads up on this article!



# TCF'21™



NJ Makers Day Partner

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The First, and the Oldest, Computer Fair in the World!  
Saturday, March 20, 2021 hosted by The College of New Jersey, Ewing NJ



## Focus on Artificial Intelligence

3:40 pm ET  
Keynote Speaker:

**Jerry Foster**  
CTO & a founder of Plex Systems,  
on "How I Learned to Stop Worrying  
and Love Artificial Intelligence"

There is much talk these days about machine learning and artificial intelligence (AI), and for good reason. AI is the enabler that drives exponential value from all other technologies; for any process that generates data, it is no longer optional, but a requirement. This keynote provides an overview of Artificial Intelligence, from its humble beginnings to disruptive force, with an eye towards the significant positive impact on our world.

Jerry Foster is the CTO and one of the founders of Plex Systems, which today helps more than 600 manufacturers worldwide run their businesses. Jerry continues to set the pace of the innovation in the cloud, leading the company's technology strategy and research initiatives that drive the industry forward.

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**No Registration Needed. Just go to  
website to Attend.**

**Voluntary Donations Appreciated.**

**IEEE Integrated STEM Education Conference (ISEC)\*\***  
Saturday, March 13, 2021 - 8:00 am - 5:00 pm ET  
Virtual Online Event  
Theme: iSTEM: Lead, Engage, Succeed!  
Info: <http://ewh.ieee.org/conf/stem/>

\*\*The ITPro (Friday) and ISEC Conferences require separate registrations.

To Donate to TCF'21: Go to <https://give.tcnj.edu/give-now/>  
Click a donation button. Then in "Designation" menu scroll to end,  
select Other. Type in TCF. Then fill out Payment info. Finally, click Donate!

The 2021 TCF™ is sponsored by The College of New Jersey, its School of Engineering and supporting organizations.

**Virtual Festival via Zoom  
FREE Admission to Saturday's TCF  
Details on website:**

To attend go to [www.tcf-nj.org](http://www.tcf-nj.org)

**Host: The College of New Jersey, Ewing, NJ**

**Saturday, March 20, 2021**

**10:00 am - 5:00 pm ET**

Ham Cram starts at 9:00 am; Talks start at 10:15 am.



Lou Justice  
Leads the  
WordPress Bootcamp



Mike Redlich & Chuck Knight  
Conduct OOP University  
Python & Java



Author Barry Burd on New  
Insights in Quantum Computing;  
Using Flutter in Mobile Dev.



Donn Fishbein on  
Stock Market Investing  
using Neural Networks



Joe Jesson on  
the New 5G Internet Machine Learning  
of Things (IoT)



Randall Cole on  
Machine Learning  
with Azure



Katalin Frolio leads  
Arduino Tutorial  
for Beginners

**LoRa - IoT Unlicensed Wireless Networks**

**Ham Cram Session & Exam:  
Get an Amateur Radio License in  
one day at TCF! Cram begins at 9:00 am.**

**IEEE/ACM IT PROFESSIONAL CONFERENCE**  
Friday, March 19, 2021 - virtual online this year\*\*.  
The Saturday part continues as planned as part of TCF.  
For details see the ITPC website:  
Info: <http://princetonacm.acm.org/tcfpro>

For additional TCF21 info,  
go to the TCF website:  
[www.tcf-nj.org](http://www.tcf-nj.org)

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

Nibbles from March 1971. Vol. XIV Nr. 3  
de K3IUV Bert  
*(author's comments in italics)*

**“Our Prez Sez”**. Prez EI, **K3JJZ** (*also editor at the time, and our current auctioneer*) commented on the homebrew night event. In his words, “The quality and quantity of first-class homebrew gear displayed at the meeting was astounding, and the judging was very difficult.” Notable first-place winners: Major Project category, Lynn, **W3NSI** for his 6-2-220 battery operated transceiver; Small Project, Mario, **K3UJD** (*of Mario Table fame*), for an SSB mixer system; Surplus Conversion, Ron, **WA3AXV** (now **W3RJW**) for an SSB mixer system using the most surplus parts; Most Novel, Walt, **K3BPP** for a 1296 horn with 13 dB gain. *(I was runner up with a “Code Wheel.” Made using the motor from a “Barry rig” that we all converted to 220, and a pc board etched with a CQ message. My first attempt at pc board etching. For several years, the club used it for the June contest. CQ speed adjustment by varying the battery voltage to the motor! Coincidentally, I just found it in the Basement during a cleanout.)*

**Technical Article.** Continuation of last month’s description of the UHF TV situation in the Philadelphia area at the time. Channel 12 was just awarded to WHYY (*who retain it to this day*), but several other UHF stations went off the air due to lack of revenue. Other details

described. More info promised for next month’s issue.

**New Products of Interest ...** From Lynn, **W3NSI**. New generation Collins 651S-1 receiver is about to hit the market. It will feature digital display of frequency, using six 7-bar segment display tubes. Tuning is done by a phase-locked digital synthesizer, and frequency coverage is 400 KHz to 30 MHz. The price was impressive. \$4,135. *[Around \$1000 less than a new Corvette — Ed.]*

**From the Book Rack.** Paul, **K3WEU**’s monthly column covered the book “104 Easy Projects for the Electronics Gadgeteer,” by Robert Brown. \$6.95 hardbound, \$3.95 paperback. In Paul’s words “A unique collection of handy gadgets you can build from inexpensive and junkbox parts. A varied assortment of tubeless and transistorless devices that are useful in the home and car.” A few examples: hygrometer; light meter; darkroom timer; electronic coin toss; and other gadgets for the Ham, CBer and technician. Paul reports “check into the net 4 times and get a free book!”.

**Gadgets.** Ernie, **W3KKN**, contributed the designs for a few gadgets used in his station. First was a level limiter used in his headset. It used back-to-back zeners to limit a strong signal from hurting your ears. Second was a power source for transistor accessories, derived from the B+ in most receivers or transmitters. The third was a CW monitor and keying circuit adaptable to most transmitters. Details are in the website copy if you

are interested.

**Calendar.** Next meeting, March 17. The agenda will be Single Sideband: what it is all about; how it is generated and detected; and advantages and disadvantages. (*SSB was just beginning to take over our normal operating. This meeting was to educate and encourage members to take advantage of the latest technology.*) Coffee will be served, and guests are invited. [15<sup>th</sup> Anniversary dinner planned for the Buck Hotel, on May 8. Save the date. Excellent food, congenial bar, and best of all a danceable band. \(Hint to the board. Why not try it again?\)](#)

**Membership.** Applied for membership was Joe, K3VEQ.

**2 Meter Activity Report.** No report this month.

**Swap Shoppe. By W3ZRR.** (*Always nostalgia. Now we use the club reflector.*): For sale by Sid, **W3GEW**, a Black Widow mobile transceiver with power supply, \$100. (*This was the type rig I used at that time for my mobile operations.*) From Walt, **WA3IDQ**, a 20db directional coupler calibrated from 950 to 2000 MHz, \$10. From Ed, **K2TYW**, an R48 surplus receiver (*the unit we all converted for the club 220 intercom*), \$25. And a bonanza of other interesting items this month.

**Miscellany.** *Postage for this issue was a single 6-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](http://www.W3CCX.COM)) and read the full issue scanned by **K3IUV** (me), and posted on the website by **W3SO**, 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.**

**FT8 VHF/UHF Activity -Contest-** 2M 1st Wednesday of every month, 70 cm. 2nd Wednesday of every month 2021. See <http://www.ft8activity.eu/index.php/en/> for details.

**2M Spring Sprint -Contest-** Monday April 5, 2021, See <https://sites.google.com/site/springvhfupsprints/home/2021-information> for details.

**222 MHz Spring Sprint -Contest-** Tuesday April 13, 2021. See <https://sites.google.com/site/springvhfupsprints/home/2021-information> for details.

**432 MHz Spring Sprint -Contest-** Wednesday April 21, 2021, See <https://sites.google.com/site/springvhfupsprints/home/2021-information> for details.

**Microwave Spring Sprint -Contest-** Saturday May 1, 2021. See <https://sites.google.com/site/springvhfupsprints/home/2021-information> for details.

**6M Spring Sprint -Contest-** Saturday May 8, 2021. See <https://sites.google.com/site/springvhfupsprints/home/2021-information> for details.

**June VHF Contest - Contest** - June 12-14, 2021. See <http://www.arrl.org/june-vhf> for rules and details.

**Murgas ARC Hamfest & Computerfest - Hamfest** - July 4, 2021. Plains PA. <http://hamfest.murgasarc.org>

**CQ WW VHF Contest - Contest** - July 17- 18, 2021. Details to follow.

**222 and Up Contest - Contest** - August 7– 8, 2021. Details to follow.

**10 GHz and Up Contest (Round 1) - Contest** - August 14 – 15, 2021. Details to follow.

**September VHF Contest - Contest** - September 11-13, 2021. Details to follow.

**10 GHz and Up Contest (Round 2) - Contest** - September 18-19, 2021. Details to follow.

**EME - 2.3 GHz & Up – Wknd 1 - Contest** - September Date TBD

**EME - 50—1296 MHz – Wknd 2 - Contest** - October Date TBD



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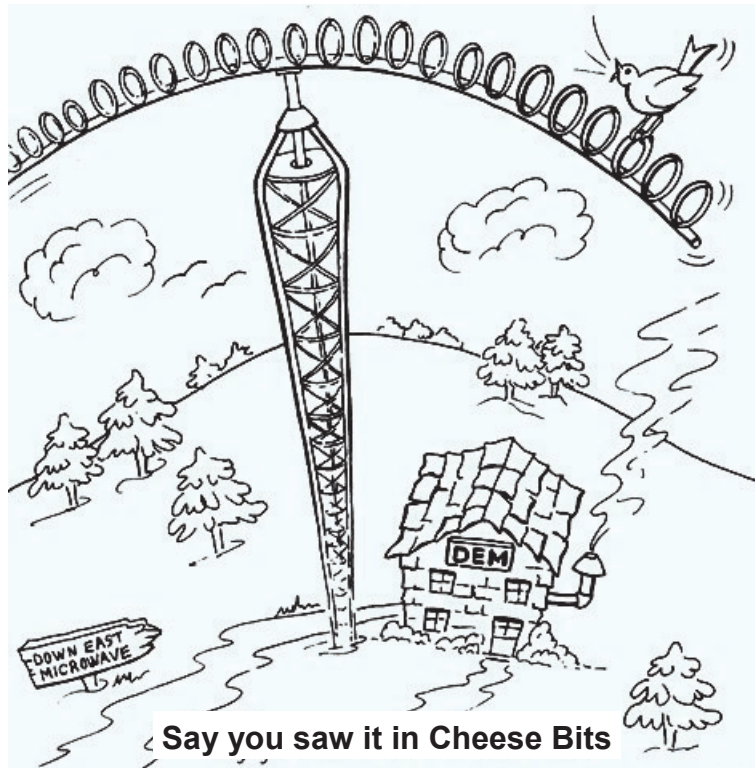
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