

THE NUGGET



Mother Lode DX/Contest Club

The Newsletter of the Mother Lode DX/Contest Club

February 2022

Volume 27 Number 2

From the President – NR6Q

Greetings from the President,

As we enter the spring of 2022 it is time to start with more consistent in person meetings. Looking forward to the first meeting of this year on March 19th. This will coincide with the 7th annual Loomis Hamfest. The Hamfest will run from 7 AM until noon. The MLDXCC monthly meeting will follow promptly at 1200 hours. We will be meeting at the Pizza Factory, 5831 Horseshoe Bar Road. Look forward to seeing everyone there!!

As we start the new year it is important for the leadership to understand the types of presentations the membership would like to experience. Please feel free to reach out to me

Next Meeting

Date: March – 19th

Time: 12:00 noon

Location: Pizza Factory, 5831 Horseshoe Bar Road

Loomis, CA.

or any of the other officers with your feedback. What subjects should we cover?

On the DX front, I am sure most of you know by now the Visalia DX convention was again canceled. This has been a staple event for all of us in the DX/Contenting community. Hopefully, it will be back in full force in 2023.

Please remember that the ARRL DX contest is coming up. March 5-6th is the date. This is one of our focus contests. While we will not have a meeting prior to the contest, just a reminder it is a focus contest.

73,

Greg Glenn, NR6Q

Presentation: TBD

MLDXCC Treasurer - K6SZQ

MLDXCC Treasurer's Report - January 2022

12/31/2001 Opening Balance	\$2,562.11
Income	\$40.00
2022 Dues - Paypal	\$40.00
Expenses	\$62.00
Annual Post Office Box Rental	\$62.00
1/31/2022 Ending Balance	\$2,540.11

From the Secretary – W6BRY

No meeting notes for the month of February.

Brian W6BRY

CLUB Dues

2022 dues are due!

The Dues period runs from Jan 1 to Dec 31. Dues are \$20.00 individual, \$30.00 family

PayPal – Send to: motherlodeclub@gmail.com.
Use the Friends and Family option.

Cash or Check - Given to a club officer at a meeting. Or mail to the Treasurer - Sue Allred
K6SZQ, 17610 Red Mule Rd. Fiddletown, CA 95629

Club Log Standings

Overall

1	N6JV	Norm Wilson	159
2	W6DR	David Ritchie	120
3	W1SRD	Steve Dyer	119

CW

1	N6JV	Norm Wilson	107
2	K6OK	Jim Varney	93
3	W1SRD	Steve Dyer	93

Phone

1	NC6R	Steve Allred	25
2	K6LR	Frank Marshall	14
3	WU6W	Rick Palio	12

Data

1	N6JV	Norm Wilson	135
2	NJ6G	Dennis Moore	119
3	W6DR	David Ritchie	107

Club Log Standings are based on worked entities during the calendar year.

Member Reports

Doug's CW/WSPR transmitter project update

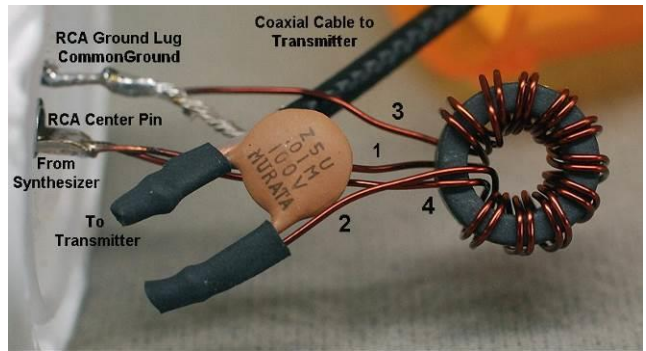
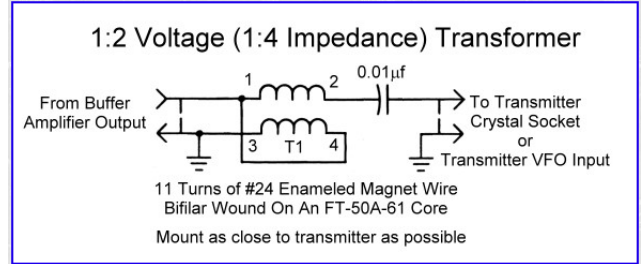
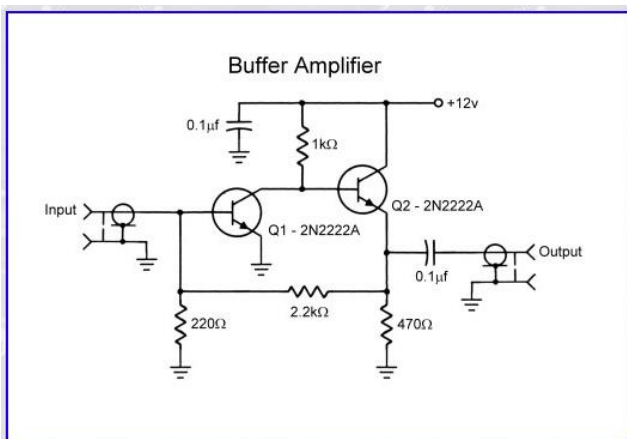


The CW/WSPR transmitter project is still on the bench. I have been having troubles getting the full rated power out of the transmitter. Initially, I was only able to get about .5 watts of output power. According to AA8V, I should see about 3 watts of power out of the 6AG7. I tried quite a few different things to troubleshoot. I built and tested several coils for L1. I installed a variable resistor to change the bias. I tried different values for the screen dropping resistor. And I tried varying the B+ by swapping the rectifier tubes. All these things made very little difference. By optimizing everything I was able to get .625 watts out.

I determined that my Si5351 VFO was not putting out a sufficient signal to drive the tube to its full potential. It only puts out a 3 volt peak to peak signal. I built a small one transistor buffer as depicted in the KB9RLW article. That didn't seem to make an improvement.

I then built a two transistor buffer amplifier as suggested by AA8V on his page.

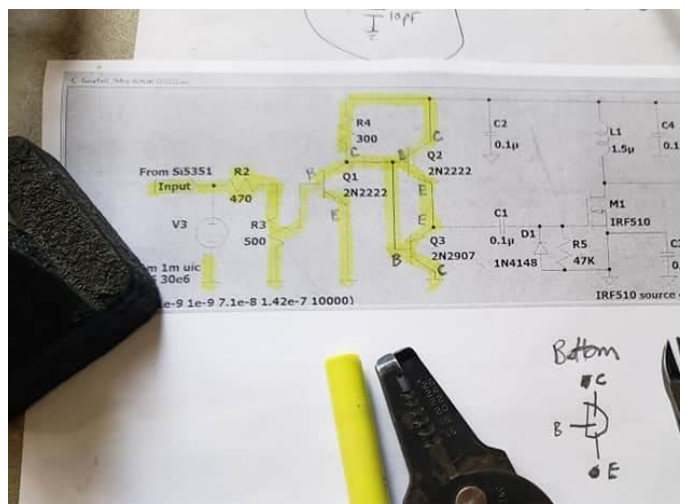
<https://www.frostburg.edu/personal/latta/ee/lm13/lm13bufferandxfmr/lm13bufferandxfmr.html>



Unfortunately even with the transformer, it didn't improve the output power. Basically the length of coax between the transformer and the transmitter degraded the signal back to about 3 or 4 volts p-p.

Fortunately, Carol KP4MD saw my struggles on Facebook and suggested a circuit that she used with the Si5351 on her Tuna Tin S transmitter project.

<https://sites.google.com/site/rcarcs/diy-radio/diy-radio-2021-spring>



<https://groups.io/g/DIYRadio/message/697>

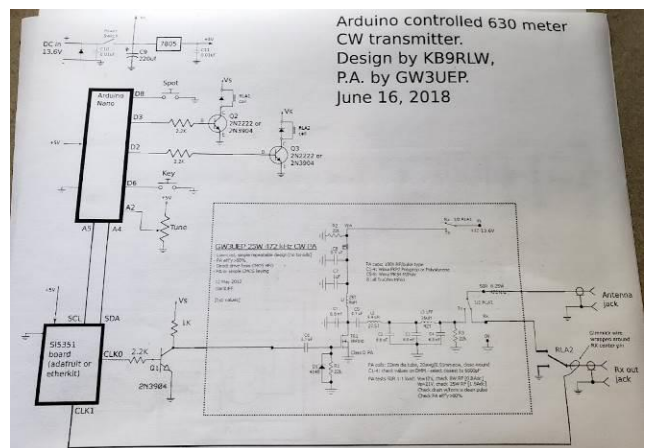
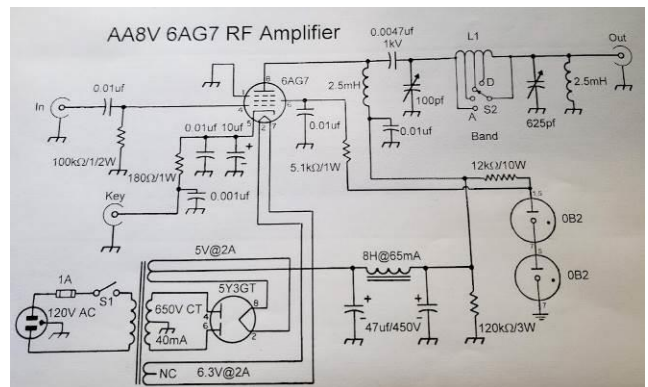


I built this circuit and a regulated 12 volt power supply on a separate board. Wow, that circuit worked excellent! It put out a clean 10.2 volts p-p. That was a sufficient amount of drive to drive the 6AG7 to full output power.

The transmitter now puts out 36.4 volts p-p into a 50 ohm load. That works out to about 3.3 watts. Exactly what I was looking for.

Now I just have to clean things up, and install the boards in metal project boxes. After that I'll work on programming the Arduino.

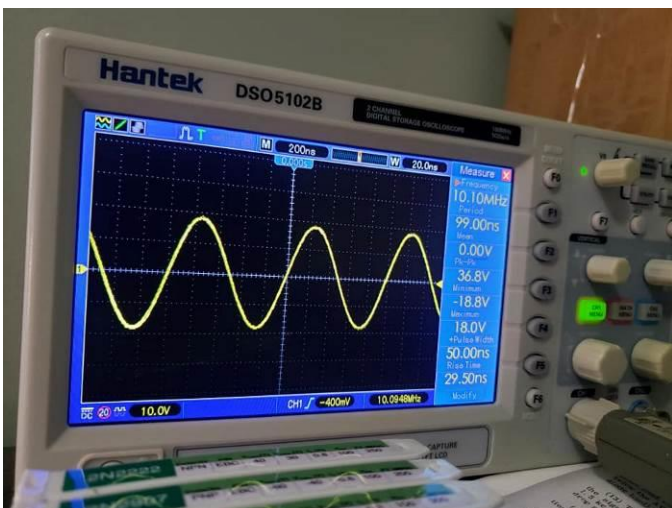
Doug WE6Z



<https://www.frostburg.edu/personal/latta/ee/6ag7amp/6ag7amp.html>

<http://kb9rlw.blogspot.com/2018/06/a-simple-arduino-controlled-630-meter.html>

Doug WE6Z

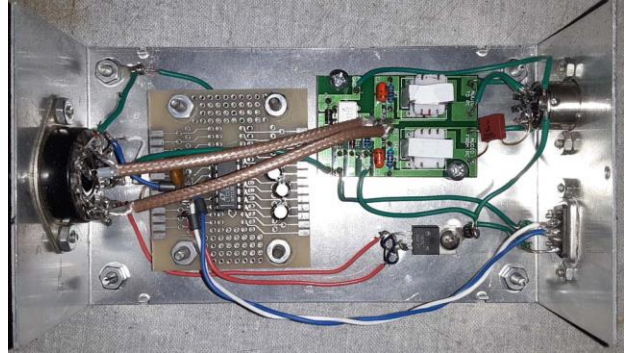


How to build a ham station using a cell phone and the post office

Several years ago, I was talking to my two sons about ham radio. They showed some interest, so I offered to give a station to either (or both) if they got a ticket. A few decades past and then my son, Clint, called me from Lehi, Utah, and told me he just got his general class license and was KK7DAH. My bluff was called so I started getting some gear together. My second spare transceiver was an ICOM 765 and that is a very good rig. I now needed an antenna that would work in a back yard without radials. The MLDXCC reflector came through and I was able to buy an R7 vertical. The antenna should do a good job without requiring the radials.

I was next introduced to the "Box Company". Seems to be the only place you could find a 6" X 6" X 3' box to hold the 22-foot-long antenna once its disassembled. A couple large boxes were needed to double box the ICOM which weighed 45 pounds once packaged. Three more boxes were filled with a regulated power supply, 50 watt 2-meter mobile rig, dual bander hand held (HRO), a big collection of coax connectors and adapters, a microphone (eBay), J-38 key, a foot switch, various coax jumpers, some long lengths of coax for the R7 and an old 2-meter Ringo antenna.

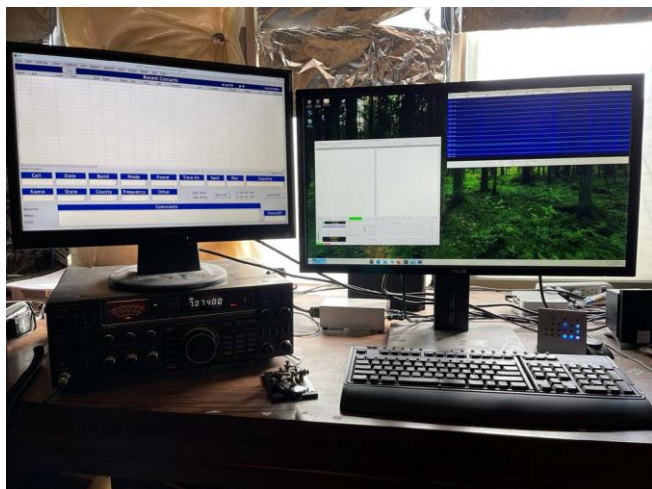
Clint had seen me operate FT8 and thought he would like to try it. I didn't have a CIV interface to link to the computer, so I ordered a new RS232 IC and started assembling a box. I had an extra audio line isolator board and added it to the assembly.



My ICOM 756PROIII has the same accessory socket and data port as the 765, so I tested the interface with it. It worked fine so the 765 was exchanged and several QSOs were made on FT8. Everything was ready to ship. By the time the rig got to Utah, the antenna was ready. The last box held the interface, a VHF SWR bridge and some more coax.



The fun began when the rig was hooked up and started. It's good that the battery in my cell phone was fully charged because the Utah folks had never actually looked closely at a complex transceiver. Step by step the SWR was checked and all required controls adjusted. We tried SSB on 40 meters and were able to make a QSO. We next started on the FT8 set up. I was worried because the computer that was to be used, ran on a Linux system which I know nothing about. It was a great relief when the first decode came through. The third generation of hams in the family have made a great start. Look for KK7DAH on the bands.



Norm N6JV

State & Province QSO Party Calendar

<https://qsoparty.eqth.net/index.html>

73,

Steve / NC6R

2022 WPX RTTY Results

CQWPXRTTY Summary Sheet

Start Date : 2022-02-12

CallSign Used : WE6Z

Operator(s) : WE6Z

Operator Category : SINGLE-OP

Assisted Category : ASSISTED

Band : ALL

Power : HIGH

Mode : RTTY

Default Exchange : #

Gridsquare : CM98MN

ARRL Section : SV

Club/Team : Northern California Contest Club

Software : N1MM Logger+ 1.0.9425.0

Band	QSOs	Pts	WPX	Pt/Q
3.5	42	92	18	2.2
7	267	746	100	2.8
14	219	300	122	1.4
21	282	524	123	1.9
28	91	148	34	1.6
Total	901	1810	397	2.0

Score : 718,570

I had a goal of making 200 contacts in the contest. Conditions on Friday were OK. 20 meters was weak on Saturday, but picked up on Sunday. There were no big openings into Europe. However, 10 and 15 meters were excellent with a nice opening to JA on 15 meters Saturday afternoon. Overall, it was a blast and I saw the rate meter go above 140/hr a couple times.

WE6Z

ARRL DX CW 2022 results

ARRLDXCW Summary Sheet

Start Date : 2022-02-19

CallSign Used : WE6Z
Operator(s) : WE6Z

Operator Category : SINGLE-OP
Assisted Category : ASSISTED
Band : ALL
Power : HIGH
Mode : CW

Default Exchange : CA
Gridsquare : CM98MN

ARRL Section : SV
Club/Team : Northern California Contest Club
Software : N1MM Logger+ 1.0.9450.0

Band	QSOs	Pts	Cty	Pt/Q
7	23	69	6	3.0
14	88	261	38	3.0
21	39	114	30	2.9
28	26	78	14	3.0
Total	176	522	88	3.0

Score : 45,936

ARRL DX Contest, CW - 2022

Call: KH6TU
Operator(s): AD6E
Station: KH6TU

Class: SOAB HP
QTH: PAC
Operating Time (hrs): 19
OpMode: SO2R

Summary:

Band	QSOs	Mults
160:	0	0
80:	187	45
40:	579	52
20:	405	49
15:	907	56
10:	625	54

Total: 2703 256 Total Score = 2,075,904

Club: Mother Lode **DX**/Contest Club

Comments:

Fun time on the high bands. Nice to have sunspots again.

Disappointment: Low band antenna broken my 160 OCF dipole matching network failed immediately. I have a HB switchable matching network at the feed point that can move resonance from 80 to 75 to 160 by remote relays. Friday night it showed high SWR and shut me out of both bands the first night. I spent two hours troubleshooting Sat morning but could not find the problem. Sat after noon I spent two more hours on it and finally bypassed the matching networks. That was good enough for the KPA1500 to tune it so I could run 80 (only) the second night with reduced QRO.

My only other complaint is my own fat fingers caused the usual problems and probably a bunch of busted calls.

Overall rate was excellent for my part time effort. SO2R was of marginal use due to high rates that hovered in the 200/hr range much of the time plus a lot of really weak stations near or in the noise floor necessitated using only one radio. Nice to see the last ten rate >300/hr a couple of times.

K4 + KPA1500 to 3 element SteppIR at 70ft

K3 + P3 + Acom 2000A to 2 element SteppIR at 65ft (same tower) + 160 OCF wire.

ARRL DX Contest, CW - 2022

Call: N6GEO
Operator(s): N6GEO
Station: N6GEO

Class: SOUAB HP
QTH: CM98vb
Operating Time (hrs): 13:12

Summary:
Band QSOs Mults

160:
80: 31 12
40: 69 18
20: 117 23
15: 146 26
10: 63 24

Total: 426 103 Total Score = 131,634

Club: Mother Lode DX/Contest Club

ARRL DX Contest, CW - 2022

Call: K6YK
Operator(s): K6YK
Station: K6YK

Class: SOAB HP
QTH: SJV
Operating Time (hrs): 7.8

Summary:
Band QSOs Mults

160: 0 0
80: 19 4
40: 26 17
20: 130 44
15: 107 31
10: 20 8

Total: 302 906 Total Score = 94,224

Club: Mother Lode DX/Contest Club

Call: K6OK
Class: SOUAB HP

Band QSOs Mults

160: 4 3
80: 38 18
40: 164 55
20: 260 61
15: 232 62
10: 52 25

Total: 750 224 Total Score = 504,000

To paraphrase a former Sacramento sports announcer, "If you don't like these conditions, you don't like ham radio!"

Very enjoyable contest. One of the charms of this contest is when it comes to power level, you don't know what you're going to get. K, KW, 100 (zero zero or oscar oscar), ATT, NN, NT, 5TT, 4TT and so on. But adding a twist to that were a couple of stations that changed their exchange during the contest, one time sending K, the next time KW. That kept me on my toes. I always logged exactly what was sent.

Worked one station on all six bands (PJ2T) and 6 others on 5 bands. Fell just short of DXCC-in-a-weekend with 92 entities.

73 Jim K6OK

ARRL DX Contest, CW - 2022

Call: W6SR
Operator(s): W6SR
Station: W6SR

Class: SOUAB LP
QTH: SV
Operating Time (hrs): 9
Remote Operation

Summary:

Band	QSOs	Mults
160:		
80:	10	6
40:	31	15
20:	21	15
15:	66	29
10:	30	15

Total: 158 80 Total Score = 37,920

Club: Mother Lode DX/Contest Club

A real lesson in timely calling, just 90W to a 23' ground mounted Alum. Vertical pole + 4 radials and a Elecraft KAT-500 tuner to make it work on 10-80M.

Many thanks for the all you who stuck with my many calls, and pulled my weak signal from the QRM.

Promise to have a much better antenna next time....de Rick, W6SR

ARRL DX Contest, CW - 2022

Call: N6JV
Operator(s): N6JV
Station: N6JV

Class: SOUAB HP
QTH: Wilton, CA
Operating Time (hrs):

Summary:

Band	QSOs	Mults
160:	12	7
80:	75	26
40:	253	56
20:	494	74
15:	427	72
10:	86	34

Total: 1347 269 Total Score = 1,087,029

Club: Mother Lode DX/Contest Club

Norm

ARRL DX Contest, CW - 2022

Call: WK6I
Operator(s): WK6I
Station: WK6I

Class: SOUAB HP
QTH: CA
Operating Time (hrs):
OpMode: SO2R

Summary:

Band	QSOs	Mults
160:		
80:	5	4
40:	77	40
20:	10	8
15:	95	22
10:	22	9

Total: 209 83 Total Score = 51,792

Club: Northern California Contest Club

Comments:

Just hopping on here and there for the weekend - cheers!

On and off all weekend. Sunday was the most fun by far.
73,
Steve
W1SRD

ARRL DX Contest, CW - 2022

Call: W1SRD
Operator(s): W1SRD
Station: W1SRD

Class: SOUAB HP
QTH: CA
Operating Time (hrs): ~16
Summary:

Band QSOs Mults

160: 80: 15 10
40: 109 50
20: 182 68
15: 253 56
10: 40 29

Total: 599 213 Total Score = 381,483

Club: Mother Lode **DX**/Contest Club

Tube of the Month

25T – 3C24

In 1944 both EIMAC and Heintz & Kaufman came out with a small transmitting tube. H&K called it the [HK-24](#) and EIMAC named it the [25T](#). I never established which was first or who copied who. Both tubes used a filament of 6.3 volts at 3 amps and had a maximum plate voltage of 2000 volts at 75 mA. They operated at full power up to 60 MHz. EIMAC added it to their triode series of tubes. At a bit over 4 inches tall, it was the smallest. In 1945 the tube was fitted with a grid pin out the side and this was designated the [3C24](#) by the RMA-EIA and it appeared on its list of preferred-types to be used by the military. The

ARRL Contesting Certificates

If you have participated in ARRL Contests by submitting your log, enter your call sign and see your available certificates. You can view and download them. The certificates show where you placed in the contest.

<http://contests.arrl.org/certificates.php>

Awards Checkers ARRL

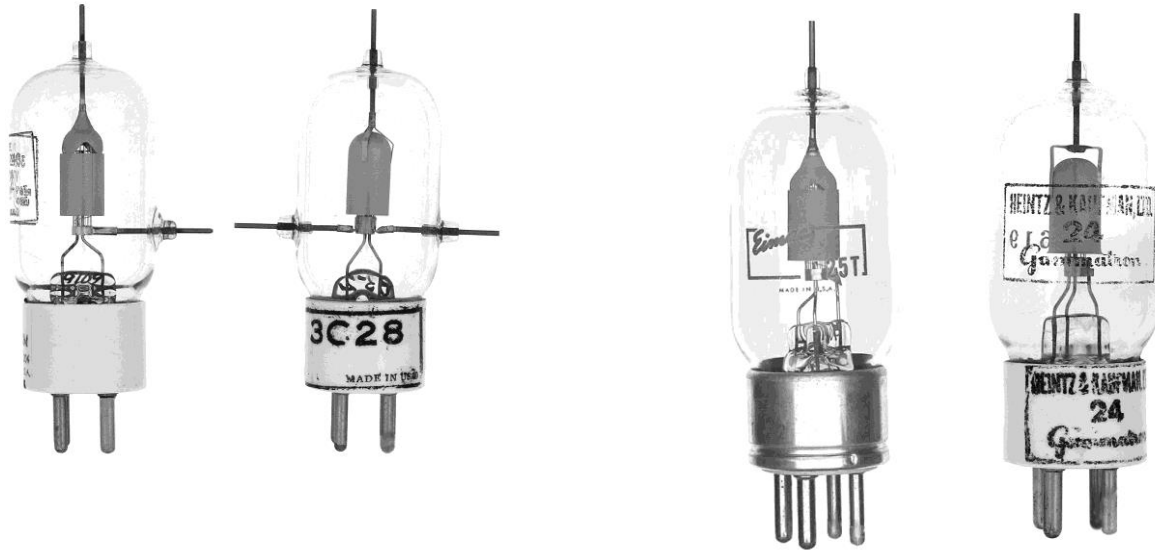
Ken Anderson, K6TA

(DXCC, WAS, VUCC, 160M)

Rick Samoian, W6SR

Signal Corps used the designation VT-204. Another variant, the 3C28, had two opposite grid pins. I don't know why these tubes were in demand, but for the next several years, many different companies were making the 3C24. Besides EIMAC and H&K, Lewis Electronics, North America Philips, General Electronics, Cascade Research and several others were producing them. I do know that a pair of them were used in the 6-foot tall, 600-pound, 50-watt, one channel, VHF AM military transmitter, the BC-340-A and in another obscure VHF amplifier.

When I was building my first transmitter back in 1959, I sure could have used some of these small tubes. I lived far from civilization in Central California and had no exposure to the surplus market. They would have been a lot easier to neutralize than those 2E26s.



Visit the museum at N6JV.com
Norm N6JV

MLDXCC Focus Contests

The following lists all contests in which MLDXCC would appreciate your efforts.

- ARRL SS CW/PH
- ARRL DX Phone*
- ARRL DX CW*
- ARRL 10M*
- ARRL 160M*
- California QSO Party

*Proposed and approved at the November 12, 2016 MLDXCC general meeting.

Northern California Contest Club (NCCC) announced their focus contests at their August 2018 meeting. This list can be found in the Aug 2018 NCCC newsletter.

- ARRL RTTY RU
- CQ WPX RTTY
- CQ WPX SSB

CQ WPX CW

The NOAA Solar Update

Click the link below to display the latest NOAA solar predictions.

<http://www.swpc.noaa.gov/products/weekly-highlights-and-27-day-forecast>

UPCOMING DX and DXpeditions

Click the link below to display upcoming DXpeditions.

<http://www.ng3k.com/Misc/adxo.html>

MLDXCC Reflector

The MLDXCC reflector is maintained at groups.io. Visit <https://groups.io/g/mldxcc>

We also maintain a spotting reflector at
<https://groups.io/g/MLDXCC-Spots>

We are also on Facebook!
<https://www.facebook.com>

UPCOMING Events

For the latest contest info, click on the following link:
<http://www.contestcalendar.com/contestcal.html>

Sierra Foothills Amateur Radio Club's - W6EK.ORG

Loomis Hamfest 2022

Saturday, March 19th

First Swap of the Year - Rain or Shine

Historic Loomis Train Depot
5775 Horseshoe Bar Road, Downtown Loomis

7th Annual Loomis Hamfest
Meet & Greet Everyone - Visit
the ARRL Booth - Door Prizes
Hourly -- Free Parking



Elmer Tours - Test Bench - Hot
Coffee and Donuts - Taylor's
Lunch Deal - SFARC Club Table
Buyers 7 AM - Noon
Sellers 6 AM

Grand Prize @ 11 AM

SFARC is an ARRL Affiliated and Special Service Club. ARRL is the National Organization Representing Amateur Radio Operators. Stop by the ARRL Booth and visit with Dr. Carol Milazzo, KP4MD, Sacramento Valley Section Manager.



Talk-In - W6EK 145.430 PL 162.2 Hz - Talk-In

Classifieds

Members are requested to review their classified ads each month for accuracy and to resubmit their ads or confirm their desire to keep it running in the next issue.

The Northern California Swap

Thursday evenings at 8 PM local on the N6ICW repeater system 147.195 +123
Join Armand WB2ZEI and the group to buy, sell, or trade amateur radio related gear. Check-ins and visitors welcome.

Need QSL cards, business cards, club banners?
Contact Vina K6VNA vina@sign-tek.com

FOR SALE: \$200.00 - Complete CDE HAM III Series 2 antenna rotor system. The controller has the LED dial light modification and includes about 50 feet (or more) of the 8 conductor rotor cable and the original factory owner's manual. The system operates just fine.

For questions: Bill - N6GHZ in Camino at (530) 409-9782. N6GHZ@ARRL.NET



For questions: Bill – N6GHZ in Camino at (530) 409-9782 N6GHZ@ARRL.NET

2021 Meeting Dates

January – none
 Feb – none
 March – 19th
 Apr – 16th
 May – 14th
 June – 18th
 July – 23rd
 August – 27th
 September – 17th
 October – 22nd
 November – 19th
 Dec – TBD

Dates are arranged to accommodate major contest dates. Meeting dates are subject to change. MLDXCC traditionally holds a mid-year combined meeting with NCCC.



FOR SALE: \$100 - HP 8640B 0.1 to 512 MHz signal generator (military version). The generator performs right on with up to +20 dBm RF output (in CW mode). It has FM and AM modulation. The picture shows it at 500 MHz and 0 dBm output.

Area Clubs

Northern California Contest Club - <https://www.nccc.cc>

Lodi Amateur Radio Club - <http://www.lodiarc.org>

Stockton Delta Amateur Radio Club - <http://www.w6sf.org>

Pizza Lovers 259 -

<https://www.pl259.org>

El Dorado Amateur Radio Club -

<http://edcarc.net>

Sierra Foothills Amateur Radio Club -

<http://www.w6ek.org>

Redwood Empire DX Association -

<http://www.redxa.com>

Calaveras Amateur Radio Society

<http://calaverasars.org/>

Tuolumne County Amateur Radio Electronics
Society (TCARES)

<https://tcares.net/>

Please contact the editor to have your club listed here.

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The MLDXCC Newsletter

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