

THE NUGGET



Mother Lode DX/Contest Club

The Newsletter of the Mother Lode DX/Contest Club

May 2023

Volume 28 Number 5

March Meeting

The March meeting of the MLDXCC was held in Loomis after the annual ham swap. Eleven members attended. Having no business to discuss, the group spent the time eating pizza and telling stories. The next meeting will be in Martell on May 13. The Nugget is becoming an active "for sale" site with lots of items for sale. Please try to get any Nugget input to the editor by the Monday before the next meeting. N6JV (roving correspondent)



Treasurer's Report

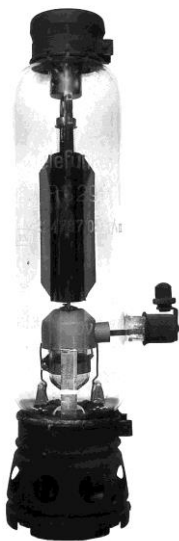
MLDXCC Treasurer's Report -March /
April 2023

2/28/2023	Opening Balance	\$3,119.67
	Income	\$150.00
	2023 Dues - Paypal	\$20.00
	2023 Dues - Checking	\$130.00
	Expenses	\$0.60
	PayPal Fees	\$0.60
4/30/2023	Ending Balance	\$3,269.07

Tube of the Month

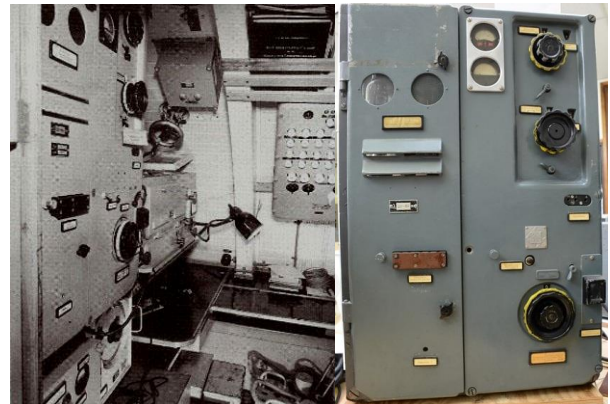
Unterseebootsenderöhre, RS 291

In the years before WWII, the Telefunken Company developed special tubes for specific applications. The German surface fleet was neutralized early in the war so the Unterseeboote (U-boats) were the primary focus. Telefunken made two types of short-wave transmitters for the U-boats. One was a standard unit for normal operations in the North Atlantic and a more powerful transmitter was made for very long-range operations. The most common unit was the 200-watt, S 406 S/36 developed in 1936. It used a pair of [RS 291](#) tetrodes in its final amplifier. The RS 291 is rated at 110 watts dissipation which seems to be overly modest when the tube is about 10.5 inches long. The anode was rated at 1500 volts at 160 ma. The filament was 8 volts at 1.6 amps. This tetrode was designed for efficient operation using grid modulation. The base has three banana plug sized sockets instead of pins.



The U.S. relied mainly on quartz crystals for transmitter frequency control and produced about 30 million crystals. Germany had little

access to quartz as it was mainly mined in Brazil so their consumption was less than 1 million. Telefunken knew they had to produce a stable VFO for frequency control especially in the U-boats, so an extensive research program was started to solve the issues. Thermal expansion of the metal in a VFO's enclosure was solved by die-casting a magnesium-aluminum ceramic which made the structure more rigid and the ceramic had a neutral response when heated or cooled. The enclosure was plated with copper to provide shielding. Most transmitting capacitors were made using mica but mica was another material in short supply in Germany. Ceramic was developed to make highly stable fixed value capacitors. For the proposed VFO's inductance, a variometer was made of high tolerance ceramic with electroplated traces of copper and silver. The ceramic capacitors were made in stacks of several small value capacitors that had different thermal responses and thus canceled out any thermal drift. With this transmitter they were able to stably transmit on 1,125 different 10 kHz split channels covering 3500 to 15000 KHz.



At the beginning of WWII, the U-boats were extremely successful. There was little defense against them. Their greatest enemy was a micromanaging command structure. They demanded that the boats make radio schedules to get instructions. With the VFO controlled radio, they could be anywhere in the spectrum and even if the Allies heard a message, they

couldn't accurately get a bearing. All transmissions were CW and encoded using an Enigma machine. Eventually the Allies developed a technology they called "Huff Duff" or HF Direction Finding utilizing a "birdcage" antenna that wasn't affected by masts or other objects. A quarter of the U-boats that were sunk were the result of radio intercepts. Microwave RADAR and SONAR helped deal with the rest. The crew of a standard U-boat was 44 including 2 "funkers" or radio operators all sharing 1 bathroom and no shower.

The photos of the U-boat radio room, the RS 291s and the S 406 S/36 transmitter are shown with permission from cdvandt.org.

Visit the museum at N6JV.com
Norm N6JV (chief funker)



[W6SR'S R7 Project](#)

Rick purchased a used Cushcraft R7 antenna and we set it up in my yard for testing. After adjusting the traps thirty times, the consensus is that the 12-meter trap has a bad connection. If a new trap isn't available, we will result to surgery. How hard could it be?

K1YQP is supervising.



Deleted Countries - Ifni

Ifni

Ifni was a 580 square mile Spanish colony on the Atlantic Coast of Morocco from 1476 until 1969. The principle industry was fishing.

As can be seen by the map it is a small region, a little larger than the modern day towns of Ceuta and Melilla. The initial contact with the local inhabitants was cordial and they agreed to becoming part of Spain. The territory and its town, Sidi Ifni, was ceded to Spain by the Sultanate of Morocco in 1860. There was no immediate interest in colonizing the area. It's prominence grew and in 1937, when Spain obtained Spanish Sahara and an airport was built in Sidi, linking all the possessions in the region including the Canary Islands. Spain's intent was to take over the southern part of Morocco and Ifni was an ideal location to launch their venture. Spain built Ifni into a small community with housing and streets.

In 1957, as Morocco gained its independence from France the region came under attack by Moroccan forces. They basically took over the region but their efforts were thwarted and Spain developed a defense perimeter around what remained in their possession. That remnant became a territory of Spain. In 1958 the region was formally declared a province of Spain. The indigenous people were allowed to build mosques and Christianity was not allowed to proselytize them.

On June 20, 1969 Spain returned the province to Morocco. The economy collapsed and the locals were subjects of a French speaking administration, something they had never before experienced.

From the photos on line the city looks very inviting. If it were still a separate entity!



Thanks to the Southern California DX Club Newsletter

Club Log Standings 2023

Overall

1	W1SRD	Steve Dyer	213
2	K6OK	Jim Varney	203
3	W6DE	Dave Engle	195

CW

1	K6YK	John Lee	169
2	K6OK	Jim Varney	118
3	N6JV	Norm Wilson	115

Phone

1	K6YK	John Lee	123
2	WU7W	Rich Palio	110
3	K6IJ	Brian Mathews	107

Data

1	W1SRD	Steve Dyer	190
2	W6DR	Dave Ritchie	184
3	W6DE	Dave Engle	179

Awards Checkers ARRL

Rick Samoian, W6SR

(DXCC, WAS, VUCC, 160M)

Postal Increase

Product	Price before Jan. 22	Price after Jan. 22
Letters (1 oz.)	60 cents	63 cents
Letters (metered 1 oz.)	57 cents	60 cents
Domestic Postcards	44 cents	48 cents

Product	Price before Jan. 22	Price after Jan. 22
International Postcards	\$1.40	\$1.45
International Letter (1 oz.)	\$1.40	\$1.45

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

2023 Meeting Dates

January 21, Martell
February 25, Shingle Springs
March 18, Loomis
April, No meeting—DX Convention in Visalia
May 13, Martell
June 17
July 22
August 26
September 16
October 21
November 11
December 2

MLDXCC – Outgoing ARRL Bureau

The Mother Lode DX/Contest Club will provide Outgoing QSL Bureau services to current paid club members. The policy is as follows:

The club will cover packaging, shipping, and the \$7.00 ARRL fee. Members will be responsible for the \$1.15 per ounce fee, payable to the club. A scale will be provided at the designated meetings to weigh the cards.

Twice per year, at the March and October meetings, members may bring their outgoing cards (or have delivered by another club member) to the meeting for collection and collating.

All regulations set forth by the ARRL must be met, including:

Members must be ARRL members to use outgoing bureau.

Must provide proof of membership (QST mailing label, ARRL membership card)

Cards need to be sorted according to ARRL requirements when brought to club.

The after-meeting program at those meetings would be dedicated to weighing, merging the cards, and making sure the paperwork is in order.

For more information regarding the ARRL Outgoing Bureau, please visit <http://www.arrrl.org/outgoing-qsl-service>

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 Events

For the latest contest info. click on the following link:

<http://www.contestcalendar.com/contestcal.html>

Sacramento Ham Swap

The Ham swap in Sacramento will be on May 28 at 7am to 11am. Location is the Carmichael Elks Lodge at 5631 Cypress. This is the corner of Cypress and Hackberry.

South Bay Swap Meet

The [Electronics Flea Market](#) will be on Sunday, May 14, 2023. The location is parking lot 3 at West Valley College in Saratoga: West Valley College 14000 Fruitvale Ave Saratoga, California 95070. Parking=\$3.

The hours are from 6:00am until 12:00 Noon.

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>

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.

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

Kenwood TS-990 and SP-990 speaker.
I am the original owner. Bought from DX Engineering (2015).
Works perfectly. Never required service and cover never removed. No scratches, no scuffs, no dings. Non-smoking shack.

Includes:
Power cord
7-pin DIN cable
13-pin DIN connector (cable attached)
Original Instruction Manual
Spiral bound Instruction Manual (from radiomanuals.com)
Spiral bound In-Depth Manual (from radiomanuals.com)
Circuit Diagram Sheets
SP-990 Speaker (w/ audio cable)
RT Systems USB-63 Programming Cable and Disc
No microphone. No boxes.

\$3,700

My QTH is in Folsom if you want to come here.

If all possible I would rather not ship due to weight, packaging costs, insurance, and shipping fees.

Contact me at: oldfsp@yahoo.com I can supply photos if desired.

Dave Sanders K6TQ
Folsom, CA
EDCARC / MLDXCC / NCCC

For Sale:



ICOM 7200 with LDG AT-100 PROII Auto Tuner.
The 7200 is in excellent condition, works 100%.
Has the power cord, mike, original manual, front handles.

The tuner has the ICOM cable, works automatically with the 7200.
\$500. Will meet within a reasonable distance.

John Lee K6YK
209-244-1369, k6yk@juno.com

Complete Collins S-Line

100% turn-key with ALL cables, connectors, audio and control lines.

Truly a plug and play assembly! \$2500.00

75S-3 Receiver: all Collins factory up-grades have been applied; PTO is exceptionally stable after 10 minute warm up. They were all hand built, this one is truly exceptional.

This receiver is equipped with the Almost All Digital Electronics, Collins C-75 Digital readout in a separate Collins gray enclosure including ALL CABLES.

32S-1 Transmitter: all Collins factory up-grades have been applied: All interconnecting CABLES are included 100%. Two NOS RCA 6146B's are included in this sale and the installed tubes perform exactly as they should, so, new tubes are included as courtesy.

Collins Microphone SM-2 (quite rare) with factory "gray" coiled cord, equipped with Collins factory PJ-068 phono plug. The condition is truly exceptional

Power Supply: is a custom Heath HP-23

This supply contains an additional 6-volt filament transformer that corrects for today's standard of 120 volts on the primary as opposed to the 110-volt standard in 1961. This supply has the screen voltage clamped via dynamic solid-state regulation originally designed by Collins artist William (Bill) Noonan W6BN (sk) for the Collins 516F-2 This enhancement provides excellent linearity as the screens are held in very close tolerance. Proper Collins plug and cable are applied for connections between TX and power supply. Enclosure is in beautiful condition.

312B-4 Station Console:

Excellent condition includes the special N-connectors with new LMR240 cable and the 6 volt meter light connecting cable. Collins manual copy included.

30S-1 Amplifier:

This is a beautiful monster in appearance and performance, and the Eimac 4CX1000A has less than 50 hours from new install 3 years ago. An additional Eimac 4CX1500B used but, full emission specifications are included.



HF Amplifier:

Icom IC 2KL solid state \$1000 performs at spec, face plates of both RF deck & power supply are perfect, RF deck enclosure scratched and small dents however; works perfectly.

HF Transceiver:

Yaesu FT990 DC \$400 excellent condition, built in factory tuner, includes optional Yaesu high stability TCXO and Yaesu factory 500 & 250 Hz CW filters. This was my main CW rig and never driven more than 50 watts maximum... amplifiers were always downstream. Also, includes Yaesu MD-1 desk mic with Heil HC-4 element installed. Operator manual and Yaesu Technical service manual included.

HF project transceiver:

Yaesu FT900 \$100 requires 10pf trim capacitor on master oscillator zero-adjustment (I've run out of time to do this) this rig is in very nice condition, built in tuner, NO microphone, NO DC power cord. Rig performs correctly, full output all modes, just needs the Master oscillator trimmer replaced to correct zero set.

Digital Audio:

Timewave DSP-9+ \$50 excellent condition, Andersen DC connectors

6 Meter Amplifier:

Teletec DXP-L180 with Andersen DC connectors \$150

220Mhz & 902MHz Handheld, New in Box (never opened)

Alinco DJ-G29T \$300

THE LAST UNIT SOLD FROM THE ALINCO PLANT IN LATHROP CA. It's a Unicorn, there are no more. All Factory sealed package with manuals. List compiled from WA6Q as personal equipment. I will be attending the Swap meet in Sacramento in May.

All equipment will be delivered to the Swap meet for pick up. Items sold prior to the Swap meet must be secured via telephone call prior to the Swap meet to secure the sale.

My call and address are 100% correct in the call book and/or QRZ

My telephone number is: 530-521-0123
Please call and leave voice mail to confirm you are interested. Thank You,

Bill WA6Q

FOR SALE:

1) Ameritron ALS-1300 Solid State Amplifier and PSU. Built in 2018, 2nd owner, excellent condition. Includes custom embroidery cover. Has 10M option board installed. I had no intention of ever selling this amp but I got a great deal on a PGXL that mates perfectly with my Flex 6600 so this amp needs a new home. \$2,000.

2) M2 antennas - 40M2 Mini 2 element. These 2 element 40M yagis came out 2 years ago and I bought one of the first production units. It has 2 elements that are 38' in length, and very close in gain to a full size yagi but only 6 sq ft of wind load. covers 120 KHz of 40M, I had it up for over a year and it was an amazing antenna. I just

finished my Steppir DB-18 install so no need for a monobander now. New price on M2 website is \$1850, looking to get \$800 for this. On the ground and ready to load.

Brian K6IJ
Valley Springs
209 229 6568

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/>

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The MLDXCC NEWSLETTER

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