THE NUGGET

Mother Lode DX/Contest Club

The Newsletter of the Mother Lode DX/Contest Club

July 2023 **Volume 28 Number 7**

Secretary's Report

Mother Lode DX/Contest Club

General Meeting Minutes as reported by Secretary, Bob Hess, W1RH

The June general meeting of the Mother Lode DX/Contest Club was held on June 17th, at The Break Room, in Shingle Springs.

Call to Order

Meeting was called to order at 12:10 PM by President Greg Glen, NR6Q.

Approval of Minutes

The May minutes were not published in the June Nugget newsletter therefore, they could not be approved for the record. Secretary, Bob Hess, W1RH, volunteered to get the minutes from Rich Hill, NU6T, so they could be published in the July Nugget. [Note: Have not heard back from Rich – Bob]

Treasurer's Report

The January Treasurer's report was published in the May Nugget. Treasurer, Sue Allred, K6SZQ, presented her report stating that the current MLDXCC balance was posted in the June Nugget ($3,369.07). A motion to accept the Treasurer's report was made by Webmaster, Norm Wilson, N6JV, and seconded by Member, Rick Samoian, W6SR. The motion passed unanimously.

Old Business

President, Greg Glenn, mentioned that we are still looking for a newsletter editor

New Business

President, Greg Glenn, conducted some discussion about a potential outreach program. George, N6NFB, suggested talks for new DX'ers and Contesters on websites like ClubLog.org and 3830scores.com.

In the same discussion, Past President, Steve Allred – NC6R, mentioned that he has invited new hams to his QTH for Field Day. Steve commented that his station will operate on

generator and solar power, with an RF power of 500 watts.

The discussion regarding an outreach program also touched on the lack of RF engineers and the need to recruit more, via ham radio.

DX Reports

Those in attendance discussed the following DXpeditions:

- VU7W – Lakshadweep Islands
- VP6A – Ducie Island
- W1AW/KH8 - KH8RCC – American Samoa
- ZL7/SP5EAQ – Chatham Island (October, 2023)

- RI0FS – Shikotan Island (IOTA AS-062) (Kuril Islands) – August
- ET3AA – Ethiopia – June 19-29
- WH0RU – Saipan Island (IOTA OC-086) (Mariana Islands) – June 21-27
- 9U2WX – Congo
- XV9G – Vietnam
- FT4GL – Glorioso Islands – later this year

Steve, NC6R, reported good long-path propagation between to Africa at 6:30 AM (local time) with the beam pointed at Australia.

Norm, N6JV, reported that 6 meter propagation is generally good when the K-index is down to 1.

Future Presentations

Vice President, Rick Eversole, N6RNO, has been in touch with K3LR and has been offered several presentations including:

- Grounding
- Antennas
- DX Engineering Story
- K3LR Story
- New and Upcoming Products
- Contesting

Those in attendance voted for the talk on Grounding first and Contesting at a later date.

It was suggested that W6DE to a presentation on DX Lab software.

Also suggested were presentations on Clublog, 3830 and LOTW.

Other Discussion

Bob, W1RH, reported that MLDCC had again placed first in the Medium Club Category for the 2022 Sweepstakes.

Sue, K6ZSQ, placed First Place, YL, in the 2022 California QSO Party.

Motion to Adjourn

President Greg Glenn asked for a motion to adjourn the business meeting. Approved.

Presentation

The speaker was Bob, W1RH, with a presentation on his visit to the National Voice of America Museum.

Treasurer's Report

MLDXCC Treasurer's Report - June 2023

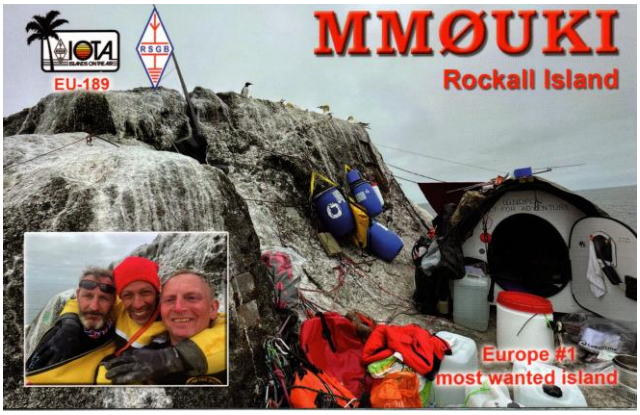
5/31/23/2023	Opening Balance		$3,369.07
	Income		$40.00
	2023 Dues - Checking	$20.00	
	2024 Dues - checking	$20.00	
	Expenses		$0.00
6/30/2023	Ending Balance		$3,409.0

July Meeting

The July meeting foe MLDXCC will be held at the Breakroom in Shingle Springs on July 22 at 11:30. The presentation will feature Tim, K3LR, speaking on antenna design. This meeting will also be linked on ZOOM. The breakroom link will show a map of this location.

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, Shingle Springs
July 22, Shingle Springs
August 26
September 16
October 21
November11
December 2



The QSL card has come in for the Rockall Island operation I noted in last month's Nugget. Not a place you would want to do a field day operation from.

DELETED COUNTRIES

The Two Germanys... maybe The Four Germanys

Germany is a very interesting country. During the Roman Empire it was a confederation of tribes that lived along the Rhine and Danube. Rome had subdued a large part of the southern area. The Germanic tribes often raided the Roman areas. Finally, they moved into Saxony and Bavaria forming the Frankish Kingdom.

The territories became part of the Holy Roman Empire from the 1500s to 1800s. In the 1500s when Gutenberg introduced the printing press things changed. The Bible was translated to common German and the Protestant Reformation loosened the grip on the region by the Catholic Church. The Empire began to divide into countries we recognize today. After the fall of Napoleon Germany became a loose confederation of 39 states. Before that several monarchies competed for control. In 1862 Otto von Bismarck became prime minister of Prussia. He created the North German Confederation. Prussia ruled the region. The Kaiser was the head of the empire and Berlin became the capital. Germany began expanding its colonial rule around the world. In a strange series of events Germany became the focal point of World War I even though it started with the assassination of an Austrian duke by a Serbian. Germany, having been rebuffed by the west, just chose the wrong side. It did become a federal republic during this period, The Weimar Republic. At the end of the war Germany had to sign a formal surrender and was forced to pay reparations which had a devastating effect on their economy. They also lost 13% of its territory and a there major industrial region, The Ruhr valley came under the control of France and Belgium. This caused great turmoil and set the stage for a really evil leader to rise and take power.

Adolf Hitler had attempted to become chancellor of Germany but failed until a special election gave him what he yearned. He rewrote the constitution and gave himself unrestricted power and the rest became the darkest events in the history of the continent. When the allies smote his ruin in that bunker in Berlin the country was divided between the West and East. West Germany became the Federal Republic of Germany and eventually became autonomous enjoying self-rule. East Germany became The German Democratic Republic and a puppet of the USSR. West Germany joined NATO while East Germany became part of the Warsaw Pact. Battle lines were drawn. In the beginning travel was somewhat unrestricted. When West Germany became an economic viability so many people were leaving East Germany that the GDR decided to seal the border. The Berlin wall was built separating a city deep in East Germany. This situation lasted from 1961 until 1989 when communism fell and the wall was torn down. Germany reunified in 1990 retaining the name: The Federal Republic of Germany. Today it is a free state with the largest economy in the EU and the most industry as well. It took hardly any time for Germany to get back on its feet.

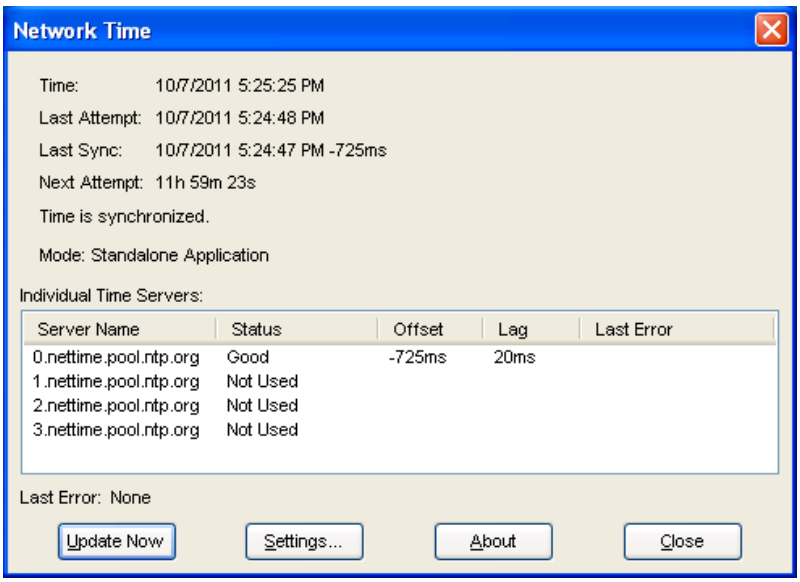
The lesson learned is that punitive reparations do not work. The only way to settle disputes is through rebuilding nations on the model that best works to ensure peace and prosperity... Love your enemy.

Thanks to the Southern California DX Club Newsletter

COMPUTER TIME SYNCHRONIZATION

Several years ago, W6SR and I gave a presentation on operating EME on 6 meters. Included in this presentation, was an explanation of the WSJT software that included the JT65 program being used on EME. At the end of that talk, I showed some views of a new program that was included with the new WSJT program. It was called FT8 and had lots of possibilities on all bands. Common to all the programs was the need to have very accurate time on your computer. We showed a program that I had been using, called Dimension 4 that did a very good job of keeping transmissions on time. A few days after that presentation, I received feedback indicating that FT8 is an addictive drug and ham radio is going to be ruined.

Some years have passed and all the programs have changed along with the operating systems. I needed to upgrade my computer to Windows 10 and everything seemed to work well until the Dimension 4 program stopped working. The internet reported that Windows 10 didn't like Dimension 4 as it had never been upgraded to be compatible with that operating system. I started looking for a replacement. There seems to be several programs designed to keep computer time, but I was having problems understanding how they worked because of many terms I had never heard before. We paleontologists have our own language. I ran across one small program that was plug-and-play and instantly worked very well called NetTime 3.14. This program uses NTP (Network Time Protocol) to link the internet time source to make corrections to your computer clock at a pre-set interval. I chose every 15 minutes. The set-up is very easy to understand and the program is free. A few times it has failed to work, but my internet is not dependable and sometimes stops or get too slow. A click on the tool bar where the NetTime icon is, will bring up the window and you can hit "Update" to re-sync the clock. You can always check the synchronization by opening Time.is. If the DT on the FT8 signals you are receiving, start averaging above 0.4, it's probably your clock. I have not had to reset the clock in some weeks so I think my problem is solved.



Tube of the Month

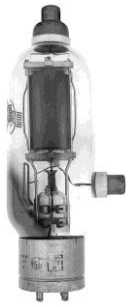
810

In the mid-1940s, RCA started advertising again the tubes they developed before the War. Many of the tube types were widely used by the military, but with the end of the War, RCA needed to expand their commercial customer base. Commercial AM radio had been shut down during the War and was ready for enormous growth. In the late 1940s, the people had an AM radio in the kitchen and one in the car. The major manufacturers of AM broadcast transmitters seem to like to use similar tubes. The major players in this market, were RCA, Gates and Collins. Local radio stations were licensed for power levels commonly in the 250-to-1000-watt range. There were also stations down to 50 watts especially a night. The running of lower power at night was a very common requirement.

The tube that seemed to be very popular was the RCA 810 that was first announced in 1938. This 150-watt triode was recommended by RCA to be used as a modulator as well as an RF amplifier. The tube was good to 30 MHz plus and used up to 2250 volts at 275 ma on the plate. The filament was 10 volts at 4.5 amps. It would have been very popular among the hams, but they were buying 250TH and 304TL tubes for small change on the surplus market. RCA liked the 810 and modified it with a different grid and created the 8000 which had a mu of 16.5 instead of 36. They also made a version of the 810 with a 5-volt filament called the 1627. Taylor Tubes also made an 810, but it had slightly different characteristics. RCA, Gates and Collins all used the 810 in their 250-watt transmitters.

RCA BTA-250L (bunkerofdoom.com)

Collins 300G (collinsradio.com)



810

1627

The Gates BC-250T transmitter was the most popular set in this class. At 750 pounds this is a lot of weight for 250 watts out. The key was that the 250-, 500- and 1000-watt amplifiers were basically the same. You could buy a 250 and later buy a kit to make it into a 1000. It may have been easier to buy the BC-1T and get a kit to change the tubes and run 250 watts as all the sets used the same parts except for the power supply and some tank capacitors. The BC-1T used 833A tubes and the 10-volt filament transformers could be used with the smaller 810 tubes. The 250-watt stations were so conservative and reliable that some were still in use 40 plus years after they were installed. Today several of these transmitters have been bought by hams and operated on 160-meter AM.

Gates BC-1T (AL0E)

Visit the museum at N6JV.com
Norm N6JV

Gates BC-250T (Gates service manual)

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It's good to remember when you had some hair.

HISTORY OF THE CAR RADIO

Seems like cars have always had radios, but they didn't. Here's the story:

One evening, in 1929, two young men named William Lear and Elmer Wavering drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois, to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car. Lear and Wavering liked the idea. Both men had tinkered with radios (Lear served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car.

But it wasn't easy: automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running. One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago. There they met Paul Galvin, owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator", a device that allowed battery-powered radios to run on household AC current. But as more homes were wired for electricity, more radio manufacturers made AC-powered radios.

Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business. Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker.

Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard. Good idea, but it didn't work. Half an hour after the installation, the banker's Packard caught on fire. (They didn't get the loan.)

Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioneers could hear it. That idea worked -- He got enough orders to put the radio into production.

WHAT'S IN A NAME

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier. In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names - *Radiola, Columbiola, and Victrola* were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the *Motorola*.

But even with the name change, the radio still had problems: When Motorola went on sale in 1930, it cost about $110 uninstalled, at a time when you could buy a brand-new car for $650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about $3,000 today.)

In 1930, it took two men several days to put in a car radio -- The dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut open to install the antenna. These early radios ran on their

own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them.

The installation manual had eight complete diagrams and 28 pages of instructions. Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression.

Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory. In 1934 they got another boost when Galvin struck a deal with B.F. Goodrich tire company to sell and install them in its chain of tire stores.

By then the price of the radio, with installation included, had dropped to $55. The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947.)

In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts.

In 1940 he developed the first handheld two-way radio -- The Handy-Talkie for the U. S. Army. A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II.

In 1947 they came out with the first television for under $200. In 1956 the company introduced the world's first pager; in 1969 came the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon. In 1973 it invented the world's first handheld cellular phone. Today Motorola is one of the largest cell phone manufacturers in the world. And it all started with the car radio.

Whatever happened to the two men who installed the first radio in Paul Galvin's car? Elmer Wavering and William Lear, ended up taking very different paths in life.

Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators. The invention led to such luxuries as power windows, power seats, and, eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that. But what he's really famous for are his contributions to the field of aviation. He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass-produced, affordable business jet. (Not bad for a guy who dropped out of school after the eighth grade.)

Sometimes it is fun to find out how some of the* many *things that we take for granted actually came into being!

AND

It all started with a woman's suggestion!!

(Courtesy of the Antique Radio Club of Illinois – ARCI)

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Club Log Standings 2023

Overall

1	W1SRD	Steve Dyer	229
2	K6OK	Jim Varney	213
3	W6DE	Dave Engle	212

CW

1	K6YK	John Lee	185
2	K6OK	Jim Varney	130
3	K6IJ	Brian Mathews	124

Phone

1	K6YK	John Lee	127
2	K6IJ	Brian Mathews	120
3	W1SRD	Steve Dyer	113

Data

1	W1SRD	Steve Dyer	209
2	W6DE	Dave Engle	194
3	W6DR	Dave Ritchie	189

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
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

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

South Bay Swap Meet

The Electronics Flea Market will be on Sunday, August 13, 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 6:00 am until 12:00 Noon.

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PACIFICON℠ 2023
October 20-22, 2023

San Ramon Marriott
2600 Bishop Drive
San Ramon, CA 94583

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

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,

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