Volume 20, Number 7 July 2015

The Nugget

Mother Lode DX/Contest Club

The Newsletter of the Mother Lode DX/Contest Club

MEETING DATE, LOCATION & PROGRAM

The Mother Lode DX & Contest Club is proud to announce that we will have John Miller K6MM as our July meeting speaker. The meeting will be held on July 25 2015 between 11:30 and 3:00 pm.

Location ... The Old Spaghetti Factory in Stockton March Ln & I-5

John has been active in amateur radio in since 1958. After relocating to California in 1976 and restarting his interest in ham radio in the late 90's, He has focused on DXing, contesting and recruiting new operators into the hobby. John was a DXpedition operator at PJ7E Sint Maarten, K9W Wake Atoll and recently K1N Navassa Island. John is a past president and current member of NCCC, and a Director of the Northern California DX club and Northern California DX foundation. He was also general co- chair of the 2015 International DX Convention held in Visalia Ca. John will talk about his experience as an operator at the K1N station.

This will be an RSVP meeting, as the restaurant requires us to pre-order our lunches.

The menu selection for the meal will be limited to:

1. Chicken Caesar Salad: Chicken breast strips atop crisp romaine lettuce tossed with classic Caesar dressing, shredded Romano cheese, garlic herb croutons and Roma tomatoes. ($15.00)

2. Italian Sausage with meat Sauce: Zesty sausage served with our from scratch Rich Meat Sauce over durum semolina spaghetti. (17.00)

3. Chicken Marsala: Seasoned breast of chicken with a fresh mushroom and Marsala wine sauce, served alongside spaghetti with Browned Butter & Mizithra Cheese. ($17.00)

4. Spinach and Cheese Ravioli: Tender pillows of pasta stuffed with spinach and two kinds of cheese, topped with savory Marinara Sauce. ($15.00)

Coffee, Tea, and Water and a small dessert are included with the meal. Soda, Beer, Wine, etc. may be individually ordered from the bar. Vegetarians may order item 1 less the chicken.

If you plan to attend please send an email with your name, call, number of persons and menu selection to Bob KR6N at kr6n@comcast.net by July 17. We welcome and encourage bringing guests. We will collect funds and issue meal tickets at the event.

The W1AW/6 Portable Operations during the ARRL Centennial QSO Party 2014 was a great success.

Many MLDXCC members participated and we need a group picture for our web site and newsletter.

If you're an MLDXCC member and operated as W1AW/6, please bring the memorial medallion plaque that you should have received and participate in a group picture prior to the lunch.

We'll also take a membership photo of all in attendance to catch as many new members as possible.

Formal wear is NOT required, just "ham casual". Ken, K6TA

To:
k6ao@arrl.net
Sent:
Thu, 16 Jul 2015 07:59:46 -0700
Subject:
US Islands QSO Party Participation - general Hi to the Mother Lode DX/Contest Club (K6AO) and its Members:

This is to invite the Mother Lode DX/Contest Club (K6AO)and its members to participate in the 2015 US Islands QSO Party on August 29-30 (1200-0300 UTC). Nearly 3000 islands have been listed by the 21 year old US Islands Award Program and a little more than 2000 of these have been activated. There are many more islands in the USA and its territories that qualify for listing since an Island only need to be surrounded by water, at least 100 feet long and at least 50 feet from the main shoreline.

A mini-expedition to activate an island can be a fun club or individual Ham experience. This is especially true during USI's Spring One-Day Getaway and the August QSO Party. Being on the receiving end of relaxed pile-ups along with QSOs with other island stations and an expanding band of island collectors can be a rewarding activity for K6AO. Some QSO Party island expeditions will be to previously activated Islands while others will be activating listed but not yet activated islands or new islands they have had added to the list.

The first reported activators of an island have their callsign shown on the list of US Islands. Initial activations require at least 25 QSOs and contacts with at least two DX entities (usually the US and one other), but subsequent activations can be as few or many QSOs as you want to make.

Participating non-island stations are an important part of the USI QSO Party, so if Mother Lode DX/Contest Club will not be operating from an island please

consider having K6AO contact the island stations during the USI QSO Party.

Information about the US Islands, the QSO Party and a calendar to post your planned operations can be found at: http://www.usislands.org/ It would be appreciated if this information were mentioned at your club meetings and in your newsletters with the hope some members would want to participate as a club or individual effort. 73, Ralph, NM5RC US Islands Award Program Committee Member

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MLDXCC DUES

Our dues are voluntary; however you must pay dues, $15/yr, to be eligible for any club awards.
A quick look at our financial status shows us just about breaking even for the year. We started the year with $1346.48 and ended with $1655.26. That looks good at first glance, but $ 400 of that came from sale of an antenna and proceeds from Visalia Contest Dinner so we ended year with a small loss. We cannot always count on those resources. Our expenses each year are; $ 200 for club liability insurance, $ 250 to Northern California DX Foundation, $ 244 for plaques, prizes & awards. These figures, while close, are subject to final analysis by Treasurer.
Dues are $ 15 per calendar year. They can be brought to meeting or mailed to Carolyn at P.O. Box 273, Somerset, CA 95684-0273.

2015-Officers

Shirl Rose - AA6K President
Bob LeClerc - KR6N Vide-President
Dick Wilson - K6LRN Secty
Carolyn Wilson - K6TKD Treasurer
Steve Allred - K6SCA BoD
Rick Casey - W6RKC BoD
Bob Hess - W1RH BoD
Ken Anderson - K6TA BoD

Up-Coming Club Events

IARU RadioSport July11-12
NAQP RTTY " 18-19
IOTA " 25-26

August 22 meeting

NAQP CW Aug. 1-2
NAQP SSB 15-16

September 19 meeting

CQ WW RTTY Sept. 26-27

October 10 meeting

Calif. QSO Party Oct 3-4
Makrothen RTTY " 10-11
CQ WW SSB DX " 24-25

November 14 meeting

ARRL SS CW Nov 7-9
ARRL SS SSB 21-23
CQ WW CW DX 28-29

December No Meeting

ARRL 10 Dec 5-6
ARRL 160 " 12-13

Note; this is tentative. There are many other operating events. These are 'major' events that may influence choice of meeting dates.
Some of these can be focus for us, some will be ones we 'co-operate' or co-ordinate with NCCC, such as NAQP & possibly SS.

August … Joint meeting with NCCC
October … Pacificon in Santa Clara

Meeting locations

Mountain Mikes, Martel
Spaghetti Factory, Stockton
Max's, Auburn
Denny's, Cameron Park
Habenero Hot's, Lodi
Thai House Restaurant, Valley Springs

FROM THE PREZ

Greetings to all,

I hope to see a great turnout of members and guests for our July 25th meeting at "The Old Spaghetti Factory" in Stockton. John

Miller/K6MM will be giving a firsthand account of the K1N Navassa Island DXpedition. It'll be a great presentation!

In checking our standing in Club Log it appears that we have been passed by a number of European Clubs. We are now in 30th position so lets try to find and work some more DX.

Just a reminder that CQP along with the new contest season is just around the corner so if you have some station work that needs to get done you'd better get moving!!!

Speaking of the new contest season the MLDXCC is exploring making an all out club effort as a medium club in the ARRL-SS this fall. Looking at the 2014 SS results I find that the PL-259 group won the Local Club competition with a score of 1,483,322 and the SoCal Contest Club won the Medium Club competition with a score of 4,600,526. It appears that if we are to win the gavel we'll need about 50 logs with an average of 100K per log. That is our goal for this fall!!!

Shril, AA6K

THE VP SEZ

Message for July 2015

We have a fun meeting scheduled this month. On July 25th we have John Miller K6MM speaking to the club at the Stockton Spaghetti Factory. We can look forward to hearing about the Navassa Island DX pedition. I was happy to work them on 12m and 17m CW.

The August meeting is scheduled for the 22nd at the Country Café in Lockford. We will have Bob Schmieder KK6EK, founder of Cordell Expeditions speaking about his upcoming VK0EK Heard Island trip. For lunch, we can select from three items on their lunch menu. Suggestions were the Lockford Burger, the Tuna Melt or the Chef's Salad. The restaurant is about 10 minutes away from Rich's Lodi office. Thanks to Brandt K6BEW for suggesting this. The address for The Country Café is 18700 N. Hwy 88, Lockford. More info will sent out soon.

We will be looking at changing our October meeting date. There is a Multi club meeting being planned between MLDXCC, NCCC and REDXA for October 31st. Paul Ewing N6PSE from The Intrepid-DX Group will be our featured speaker. His team will be activating the #3 most wanted entity, South Sandwich as VP8STI, and the #8 most wanted, South Georgia as VP8SGI in January and February 2016. Venue is still being decided.

See you at the July meeting.

Bob KR6N, MLDXCC VP

Treasurer's Report

Balance June 1, 2015:		**$1676.25**
Income:	Badge: K6OK	20.00
	Donation: K6KM's Estate	200.00
	Dues: WK6I, N6DID, K6OK	45.00
		265.00
Expenses:	Bank checks adj. fee	.46
	Badge K6OK	19.90
	CQP Club Awards	67.56
		87.92
Balance June 30, 2015		**$1853.33**

Carolyn Wilson, K6TKD, Treasurer

CQP 50th Anniversary Get on the air -- you just might win a Gold Rush Coin !

http://www.cqp.org/goldrush.html

78 Days and Counting.....

73,
John, K6MM

From the Secretary

Minutes from the Last Meeting
MLDXCC Meeting 6-20-2015
Meeting was called to order at 12 noon by President Shirl. Introductions followed.
Moved, seconded & carried to approve minutes & Treasurer's report as reported in June 23, 2015 'Nugget'.
Under accomplishments, brags, announcements, etc;
WC6H received certificates for IARU SJV & SSB WPX.
K6DN is working on tower & has ordered a SteppIR antenna & has sent 'Hex beam' to N1DID.
K6QG welcomed back to meetings following surgery.
W1RH had comments about All Asia contest.
KR6N commented on tentative schedule. July has us at the Spaghetti Factory in Stockton with John Miller K6MM talking about K1N (Navassa). This will be a RSVP meeting. August shows Bob Schmeider KK6EK talking about upcoming Heard Is. DXpedition (VK0EK) at Lodi.
WB6BET announced the N6SJV Field Day operation is to be held at KD6MOO's and invited all to attend.
N1DID demonstrated a CT-17 type interface.
W1RH added comments about October's CQP. There may be some 1 X 1 calls spelling out a word or phrase. REDXA is making a serious effort. Also, there may be some changes coming to the club competition category.
Moved, seconded & carried to have CQP, ARRL Sweepstakes, ARRL 10 Meter and ARRL 160 Meter contest as 'focus' events.

Dick K6LRN presented CQP awards. WC6H Rich Cutler won in the High Power category, eking out Andy AE6Y by about 80 QSOs. Jim Marshall, operating as K6OLY (now K6LR), won the Low Power cup. Steve Allred K6SCA took the 'Rookie' cup.

Dick noted we need a different picture of officers for the website as the current one is a couple of administrations old.
There was mention of the Canada Day operating event.
Emily asked about measuring a 223 Mhz. Antenna.

Meeting was adjourned to a showing of the FT5ZM Amsterdam Is operation by K4UEE.

June 20th Attendees

K6QG	Lyle
K6LRN	Dick
K6KNS	Dave
KR6N	Bob
K6DN	Verne
K6TKD	Carolyn

AA6K	Shirl
N1DID	Emily
(guest)	Cheryl
K6OK	Jim
KI6YYT	Milia
WB6BET	Jim
K6LR	Jim
W6SR	Rick
K6TA	Ken
K6KO	Kay
WC6H	Rich
K6IJ	Fred
K6BEW	Brandt
WD6EIW	John
W1RH	Bob

de Dick, K6LRN

Editor's Notes de Rick, W6SR

Hi all……

The noise generated from the local PG&E pole was finally repaired! PG&E had to shut-off power to about 30 of us for 6 hours to do it, but it's finally quiet.

I haven't approached the neighbor (with the suspected grow) yet, since conditions were not great and there was nothing new for me to work. But it's next on my to-do list this month.

Not much operating last month, but with Dave's (W6DE) help I up-graded my computer system as well as changed to new DXLab logging program from DX4win. This turned-out to be a major PIA, trying to getting everything to talk to the new computer. Then to make the new software reflect my correct DXCC and WAS numbers was another huge effort. Thank god it's behind me now.

Karen and I took a trip to Oregon, for a few days, to visit friends and for a needed break after some home renovation. We removed most of the wood floors (they were tired) in the house replaced them with tile. It looks great now, and cleans-up much better. However, the process required a few days of jack-hammering to remove the old wood floors, since they were glued-down. And this left us with a huge mess to clean-up after the project was completed. Next week we have new carpet coming as well, but that with be a piece of cake compared to the tile job.

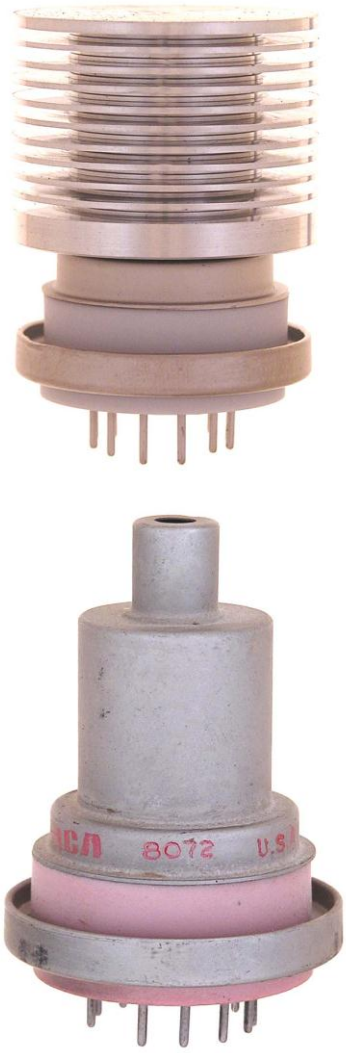
Enough for now, see you all at our next meeting de Rick, W6SR

Tube of the Month de Norm, N6JV

8072 – 8121 - 8122

In the 1960s, transistors were replacing many vacuum tubes in communication equipment. For a time, low power transmitter stages and the receivers of communication transceivers were all transistor and the driver and final amplifier were tubes. RCA developed a series of small beam tetrodes incorporating ceramic/metal construction and the use of new base configurations. Low filament current requirements didn't need much base cooling, so special vented bases weren't necessary. The 8072, 8121 and 8122 were electrically the same tube with different cooling methods. They could be used to 500 MHz. The most popular was the 8072 which used conduction cooling and was rated at 100 watts. General Electric used it in their Master Professional series of VHF/UHF transceivers for mobile and base station/repeater use. The tube was small and the anode clamping fixture added to the heat dissipation and became part of the output cavity. The Signal One CX-7 transceiver also used one.

The 8121 used transverse forced air cooling and was rated at 150 watts. The 8122 uses axial flow forced air cooling similar to the 4CX250 family and was rated at 400 watts. The 8122 was used in TV translators and in the National NCX-1000 transceiver and the National NCL-2000 and Hallicrafters SR-2000 amplifiers.



In 1971, Eimac upgraded the tubes to the 8072W etc. making them more rugged and rated them to withstand 50Gs.

Visit the museum at N6JV.com

Member News, Items For Sale & Feedback

We are excited to announce an NCCC Barbecue this September! Keep a look out for details in The Jug and on the email reflector.

WHEN:
Saturday, September 19th, 2015

WHAT:
Delicious catered food, exciting prizes, and the all important camaraderie of fellow NCCCers and guests.

WHERE:
Rich Cutler WC6H has kindly offered to host this event at his property, and you might even have the opportunity to operate from his station! Rich lives in Valley Springs, CA and has plenty of space for us. His address is 4737 Circle Hill Drive, Valley Springs, CA 95252 and on QRZ you'll see an impressive photo of the towers and house.

RSVP:
RSVP's for this event will be helpful for planning! At this point it is still early, but if you're as excited to attend as I am then feel free to go ahead and RSVP to Secretary.NCCC@gmail.com. ;-)

More details to come!

73 & 88,

Joanna K6YL
NCCC Secretary

Link to the NCCC Dues Renewal Page:
http://www.nccc.cc/membership.html

For Sale:

Mosley MA-33 Tri-band Yagi. High power version of TA-33 Jr. 12 foot boom, 20, 15, 10 M, three elements.

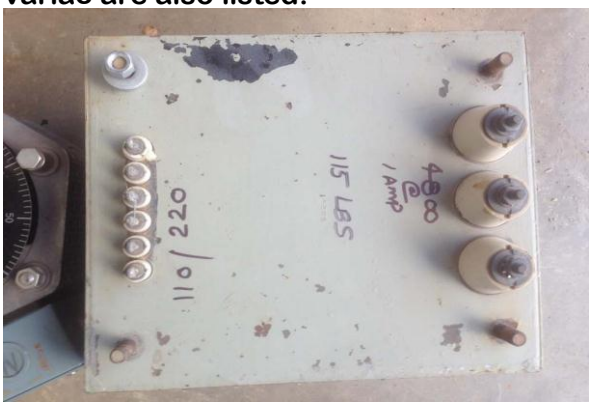
Weighs about 22 lbs. Great shape, Now off of tower, and ready to be put to use. Incl. manual (reprint) $150.00 Jim Marshall, k6lr

For a long time now I only had a pretty rough idea how much power I was generating and how much was actually coming back to the transmitter (SWR). Relying on the cross needle meter on my MFJ differential tuner leads to some speculation as to what the power/SWR actually is.
With the above in mind, I recently added a Telepost LP-100A digital watt/swr vector wattmeter to the rig. While not inexpensive, (less than the other brand) the meter really instills a sense of accuracy (NIST traceable) to the user and is a great looking addition. Besides providing power and reflected power in both peak and average readings, it can also tell you what the actual impedance of the feed line/antenna with a vector display mode.
In addition, it comes with software that allows one to display the readings and change modes on the computer screen. The RF interface can be put anywhere convenient to connecting RF cables, and is connected to the display unit with two small coax cables, about 3 feet long.
Another cute feature is that Larry Phipps, N8LP, (owner of Telepost) will program your call sign, displayed in banner form across the display if not used for longer than 3 minutes. (Yes, the banner can be changed by the user). The display is a blue fluorescent screen.
Take a look at the web site for more info.
www.telepostinc.com
Jim Marshall, K6LR

For whatever it's worth I did get some wallpaper for the CQ Marathon.
This is for 1st in 6 land in the Limited category. "Limited" is 100W max to a wire or vertical only.
The score of 225 represents the total DXCC countries (187) worked plus Zones (38) .
I haven't seen the complete results yet to see if I was the only 100 W to a wire antenna operator in 6 land!
Rick
K6LE

From K6KM's estate, we have the following items for sale:
(5ea) Rohn GB-45 guy bracket, (2ea) Rohn 45 rotor plate, (1ea) Rohn GB-55D guy bracket, missing some hardware, (2ea) BLP, (6ea) Misc. guy wire assemblies. Don't know length but can verify if necessary.
(5ea) PLP Big Grip BG-2144 1/4 inch, (2ea) Phillystran Big Grip HPTG-670001 / BG-MS-2755 3/8 inch, (1ea) 20 foot mast - quarter inch wall (approximate), (1ea) 15 foot mast - quarter inch wall (approximate)
Also have a large lot of ICE grounding/surge protection items.
Most if not all of this stuff can be available at the Saturday MLDXCC meeting, with advance notice.
I will deliver at the meeting. Rick, W6SR, will determine pricing and take your money.
de Bob, W1RH w1rh@yahoo.co

I have a variac and plate transformer that I wish to sell. The details on the transformer are written on it. And the ratings of the variac are also listed.



The transformer measures:
H - 8 ¼, W - 10 ¾, D - 9 ¼
And weighs 115 pounds.

Best offer on each
Thanks, Bob, W1RH w1rh@yahoo.co

The following is the latest installments of a multi-part series that was suggested by Dave, W6DE. It was compiled and written by W2XOY; I found it very interesting and hope our readers do as well. de Ed.

The History Of Amateur Radio Chapter 26

What was the post-war world of amateur radio like? Let's take a look at our hobby as it existed in the late 1940's.

In November 1945, amateurs were allowed back on the air on the 10 meter, 5 meter, and the new 2 meter band. The 5 meter band from 56-60 mc was temporary--by March 1946 we were moved in the great post war frequency shuffle to our new 6 meter home from 50-54 mc. As for the new 2 meter band, it replaced our old 2 1/2 meter allocation which ran from 112-116 mc. Throughout 1946, the military gradually vacated the 80, 75, 40, and 20 meter bands, turning them back over to amateur operations. We lost a few frequencies--the 160 meter band was staying in the hands of the military for LORAN Radionavigation, and we lost the top 300 kc of 10 meters, from 29.7 to 30 mc. To compensate us for this loss, the FCC, in 1946, gave hams an allocation at 27 mc to be shared on asecondary basis with industrial, scientific and medical devices. Dubbed the "11 meter band", it was unique as the only HF allocation where A0 and A2 emissions were allowed.

The amateur population was pushing 60,000, and the FCC was running out of "W" call signs in the 9 call areas. So, the FCC created the 10th call district in 1946, and redrew the district boundaries. The license structure was the same as before the war. Class A hams had all amateur privileges, including exclusive useof the 75 and 20 meter phone bands. Class B had all CW privileges, and phone operation on 10 meters and above. Note that at the time, 40 meters was CW only, and 15 meters didn't exist yet. Class C had the same frequencies as Class B, but it was a mail order license for those in remote areas. The only change the FCC made to the license structure in the 1940's was to allow applicants to copy the code either by printing, or by longhand. Prior to the war, the code test had to be copied in longhand only.

Most hams used cw or AM phone, but there were 2 new modes on the horizon. Narrow band fm enjoyed a brief surge in popularity. QST had several articles on VHF and even HF fm operation. Phase modulation, a variation on fm, made its first appearance in 1947. But the big news was something called "SSSC", or Single Sideband Suppressed Carrier". SSB, as it would eventually be called, appeared on the ham bands late in 1947. Throughout 1948, QST was full of articles on this new mode. And, how do you get your fm or SSB signal to the antenna?? Try an item developed during the war--coaxial cable. And, with coax, came a new concern over reflected power. Thus, the first SWR meters were described in QST.

So, what rig do you want to use on the air? How about war surplus? Starting in late 1946, the pages of QST and CQ were filled with ads for military surplus equipment. Numerous articles showed how to modify these rigs for amateur use. The most popular war surplus receiver was the BC-342, which was built like a battleship, and tuned from 1.5 to 18 mc. I operated one in my Novice days. Maybe you want a new rig. Try the Hallicrafters Model S-40, the Hammarlund HQ-129X (which was another receiver I owned), the National NC-46, or the Collins 75A.

But, the "Packard" of the post war radios had to be the Hallicrafters SX-42 receiver. This "radio man's radio" had every possible feature, tuned from 540 kc to 110 mc, and cost $250 in 1946 dollars. That's about $1700 today.

Perhaps you would like to build your own rig. GE, Sylvania and RCA had pages of ads showing off their new miniature and sub-miniature tubes. The "sub-minis" were only 1 1/2 inches tall and 3/8 of an inch wide. For those who think the 2 meter HT was an invention of the 70's, it may surprise you to learn that they existed in 1947, using those tiny tubes. But be careful when you get on the air. A new term is finding its way into the amateur world--TVI. In 1947, the FCC eliminated TV Channel 1 to reduce 6 meter interference, but amateurs had to learn to shield their equipment. With the help of good engineering practices, the TVI monster was kept at bay--sort of.

The Atlantic City Conference was held in 1947. Hams gained a 15 meter band, which was finally allocated to us in 1952. Amateurs proved their worth as two disasters, one natural and one man made, struck Texas in April 1947. Tornados sliced through the State, killing 150. And, in Texas City, an explosion on board a freighter set off a chain reaction that killed 600, wounded 2000, and destroyed two square miles of the city. Dozens of portable and mobile stations rushed to the scene and provided necessary communications on 75 and 10 meters.

Also on a somber note, Kenneth B. Warner, W1EH, the Secretary and General Manager of the ARRL since 1919, died in 1948. By the way, do you need a job? Are you bored with your life? Do you crave adventure? Then Hallicrafters has a job for you!! In the fall of 1947, they are sponsoring a 6 month expedition to the Dark Continent Africa--the Belgian Congo to be exact. They need an experiences Class A amateur to operate the radio equipment. If you feel you are qualified, send them your application by July 1, 1947. Finally, what's an "amplifying crystal"? You don't know?? Well, maybe you know it better by its other name--the transistor. This new device was first described in the October 1948 issue of QST. No one at that time realized the full potential of this little component, or knew how it would revolutionize the world of communications.

In our next installment, we will take a look at the 1950's--1958 to be exact.

The History Of Amateur Radio Chapter 27

If there was a buzzword to describe amateur radio in the first three months of 1958, it was "satellite". The Russians had launched Sputnik in November 1957. Thousands of hams tuned in the weak beacon from the satellite on 20 and 40 MC. Amateur Radio received a lot of publicity, as across the nation, many local papers ran articles on the hometown hams and the "signals from space". Many amateur operators were also busy building converters for 108 MC, as the U.S. Army Signal Engineering Labs in Fort Monmouth, N.J. had a 50kw transmitter on that frequency to bounce signals off the moon. The antenna was a 60 foot dish. Those lucky enough to hear it received a special QSL. Also on 108 MC was the first U.S. satellite, Explorer, launched in February 1958. Hundreds of reports were received by the ARRL from those who heard it. Amateur Radio was growing in 1958. The total number of hams was over 160,000, with predictions that we would go over 200,000 by 1960. ARRL membership was also at its highest ever, 60,000. In fact, there were so many hams, the FCC was running out of call signs. The traditional 1x3 calls beginning with "W" or "K" were almost completely used up, especially in the 2nd and 6th call areas. To alleviate the problem, the FCC began the 2x3 format. Henceforth, new Technician, General and Extra Class call signs would begin with "WA", while Novices would get "WV". The large growth in the number of licenses was partly due to the popularity of the Novice and Technician Class. Novices had 50 KC on both 80 and 40 meters, a full 150 KC on 15, and voice privileges on the 145-147 MC portion of 2 meters. The Technician Class license, which had started out with only 220 MC and above, had been given 6 meters in 1955. With the sunspots at their peak in 1958, thousands of Novices and Technicians were on 15 and 6, working worldwide DX, and getting WAC, WAS, and even DXCC awards. This upset some higher class licensees, some of whom demanded a reduction in the number of frequencies available to the Novice and Technician. No frequencies were taken away, however, the ARRL went on record as being against giving Technicians any 2 meter privileges. It wasn't until the 1970's that Technicians would finally get the full 2 meter band. Early in the year, the ARRL filed a strong opposition to a proposal to remove Amateurs from the 11 meter band and establish a "Citizens Radio Service" there. Granted, the band was lightly used by hams; it wasn't a worldwide allocation, and there was interference from Industrial, Scientific and Medical devices on 27.12 MC, still it was OUR BAND, and the ARRL made a good argument for keeping it. The FCC was expected to make a decision by the summer.

In technical developments, slow scan TV was first described in the August, 1958 issue of QST. Transistors were coming out of the purely experimental stage, and were starting to show up in practical circuits. There were several all transistor power supply and modulator projects, and even a transistorized10 meter "walkietalkie".

Mandatory in any 1958 amateur base station was a broadcast band receiver. Why? In a word, CONELRAD. CONELRAD was the predecessor to the Emergency Broadcast System. It used key stations which would broadcast emergency messages on 640 or 1240 KC. Every amateur station had to monitor 640 or 1240 KC while on the air. Mobile operators in contact with a base station did not have to monitor CONELRAD. Speaking of mobile, do you want to try it? Just remember these simple 1958 FCC rules: "Notices are required to the FCC Engineer-in-Charge of the Districts wherein the mobile or portable operation is contemplated, when such operation shall be in excess of 48 hours without return to the home address. Also, please remember to include the portable location or mobile itinerary, the dates of the beginning and end of each period of operation away from home, and the registry or license number of the vessel, vehicle, or aircraft from which mobile operation is to occur." Got that? If you still want to try mobile, then consider the new Collins KWM-1 mobile transceiver. Its a 175 watt input SSB/CW rig which covers the 20, 15, 11, and 10 meter bands. You can get it for $695. Let's take a look at the other 1958 rigs out there. Hallicrafters had several receivers, the SX-99 at $150, SX-100 for $295, and the SX-101 at $395. On the transmitter side, there was the HT-32, a 144 watt input AM/SSB/CW unit which covered the 80, 40, 20, 15, 11, and 10 meter bands for $675. Johnson "Viking" transmitters ranged in price from $55 for a basic CW kit to $950 for a 600 watt SSB/AM/CW assembled unit. You can choose a good companion receiver from Hammarlund, from the HQ-100 ($170) to the HQ150 ($294) to the all new HQ160 ($379). For VHF operators, the Gonset "Communicator III", an AM rig for 6 or 2 meters was introduced at $270. It was CD approved, of course. Clegg had the Model 62T10, a 2-6-10 meter transmitter. On the budget side, perfect for the Novice, was the new National NC-60 general coverage receiver for $60. Heathkit, of course, had some excellent bargains, from the DX-20 CW rig ($35), to the DX-40, a 75 watt AM/CW rig for 80-10 meters (including 11 meters) at $65, to a general coverage receiver for only $30. All of the above were kits, of course.

How many Radio Shack stores were there in 1958? Two!! (Boston, Mass and New Haven, Conn.). Radio Shack had a 6 transistor portable radio for only $29.95, which was "perfect for monitoring CONELRAD"

But the BIG NEWS in 1958 came from Collins. Late in the year, they introduced the S/Line of equipment. Collins took out glorious, exquisite, multi page, full color ads in QST to show off the 32 S-1 transmitter, the 75 S-1 receiver, and the 30 S-1 linear amplifier. A new standard had been set in amateur radio, and sideband was here to stay.

On September 11, 1958, the FCC came to a decision: "our"11 meter band would be removed from us and turned over to the new Class C and Class D Citizens Band. A new concept was developing; that access to the airwaves should be made available to individuals for non-technical, non-hobby personal communications. It was the dawn of a new era.

In our next installment, we'll look at amateur radio in the early 60's. I hope you will join me.

The History Of Amateur Radio Chapter 28

Where were you in '62? Lets take a snapshot of amateur radio years ago. In January, 1962, there was one word on the lips of every amateur, "OSCAR". No, I'm not talking about the Academy Award, but rather Orbital Satellite Carrying Amateur Radio. OSCAR I was launched on December 12, 1961. By today's standards it was extremely simple--a one cubic foot package containing a 2 transistor, 140 mw crystal controlled CW transmitter sending "hi" on 144.98 Mc.

The beacon lasted only 3 weeks--long enough for thousands of hams to hear it. Amateur radio was now in the space age. Congratulations came in from Vice President Lyndon Johnson and Mrs. Lee DeForest--widow of the famous inventor. OSCAR I was followed in June by OSCAR II. Other notable 1962 space activities included John Glenn's first flight in February, and the Launching of Telstar--the first communications satellite--in the summer.

The amateur radio population hit two milestones in 1962. The number of hams passed the 250,000 mark by the end of the year, and membership in the American Radio Relay League hit 100,000. With the increase in the amateur census, the FCC was running out of "WA" prefix call signs in the 2nd and 6th Call Areas. Soon, "WB" call signs would appear. As for the ARRL, it was running out of space. The old building in West Hartford was filled to the rafters. So, the ARRL proposed a new Headquarters at the site of W1AW--225 Main St., Newington,

Conn. The new building would cover 25,000 sq. ft.--vs. 14,000 sq. ft. for the West Hartford location. To finance the $250,000 cost, the ARRL started the Building Fund. They hoped to be in the new Headquarters by 1963. On May 11, 1962, Herbert Hoover Jr., W6ZH, was elected President of the ARRL. Son of Herbert Hoover--the former President and Secretary of Commerce--W6ZH was famous in his own right as an inventor, Corporate President, and engineer. Licensed since 1915, he was active on all bands from 160 through 2 meters.

In regards to licenses, there was good news and bad news. The FCC decided in 1962 that an individual seeking an amateur or CB license no longer needed to have the

application Notarized. No longer would you solemnly stand before a Notary Public, right hand raised, and swear that the application was accurate and complete to the best of your knowledge. Given the sorry state of some CB and ham frequencies, I, as a Notary, believe this requirement should be brought back. The bad news from the FCC-license fees. Public comment was solicited on the FCC proposal to institute license fees of between $5 and $10. The ARRL was strongly opposed to the idea.

For Technicians, 1962 was not a good year. A proposal to amend Part 12 to allow Technicians on 10 meters was denied by the FCC. The FCC strongly reinforced their policy that the purpose of this license was experimentation, not communication. The license was not designed for communications service, and was not to be regarded as a stepping stone between the Novice and General Classes. The ARRL supported the FCC decision. There was one bit of good news for Technicians--a new magazine called "VHF Horizons". The focus of this publication was ham radio above 50 Mc, and, for the first time in the amateur community, there were editorials in a national magazine supporting Technicians as full fledged hams. Unfortunately, after only 2 years, "VHF Horizons" ceased publication. In technical areas, SSB was passing AM as the favored voice mode. Transistors now existed that could handle 2 watts or more above 50 Mc. As a result, many "all transistor" 6 meter portable units were described in the pages of QST.

For those who preferred kits or factory built equipment over homebrewing, there were lots of choices. Heathkit had the"Pawnee" and "Shawnee" 2 and 6 metertransceiver kits. These were AM/CW mobile units, which used 15 tubes and a vibrator power supply. Clegg and Gonset also had many 2 and 6 meter rigs, including the Clegg Zeus, a 6 and 2 meter transmitter for $675. Polytronics introduced the Poly-Comm 62, a dual band 6 and 2 meter transceiver for $379.50. For the HF operator, Johnson had a full Viking Line, including the Invader, a 200 watt CW/SSB/AM transmitter for $619.50, the Ranger, a 75 watt CW, 65 watt AM transmitter for $249.50, and the Adventurer, a 50 watt CW crystal controlled transmitter for only $54.95. Why don't you match your Viking transmitter with a Hammarlund receiver? Try the HQ180 for $429, or the HQ 170 for $379. By the way, Radio Shack carries the full line of Hammarlund equipment--at their 8 stores coast to coast. Note that these are 1962 prices--multiply them by 4 to get today's equivalent. Adjusted for inflation, today's radios are 3 times cheaper than those of the 50's and 60's. CB radio was booming in 1962. There were more CB'ers than hams, and an ugly rumor started that the FCC was going to give 10 meters to the CB crowd. The FCC put out an announcement that the rumor was 100% false. CB radios were everywhere--even in the pages of QST, tucked away in full page ads from Eico and Lafayette.

The National Calling and Emergency frequencies in 1962 were 3.55, 7.1, 14.05, 21.05, and 28.1 Mc for CW, and 3.875, 7.25, 14.225, 21.4, 29.64, 50.55, and 145.35 Mc for phone.

And, finally, CONELRAD was still alive at the beginning of 1962. Every ham had to monitor 640 or 1240 kc while on the air. However, the basis for CONELRAD was becoming obsolete and, on July 13, 1962, CONELRAD ended. It was replaced by the Emergency Broadcast System.

In our next installment, we are going to look at CONELRAD, and the role it played in the lives of every amateur, CB'er, and U.S. Citizen. So, until then, keep monitoring 640 and 1240 kc, and remember to "Duck and Cover".

The History Of Amateur Radio Chapter 29

Picture the following scenario, in a slightly grainy black and white for added effect. It's the 1950's; a ham is sitting at his station, having a CW QSO. He's wearing a suit and tie, before him is a Hammarlund receiver, a Johnson Viking transmitter, and a homebrew modulator. On the wall are QSL cards and his Honorable Discharge Certificate. On the table is a collection of QST magazines, along with some curious pamphlets, with titles such as "Protect Them--Join Civil Defense", "America Calling--Take Your Place in Civil Defense", "It CAN Happen Here", "Know the Signals", and even a comic book featuring a character called "Bert the Turtle". While the Vibroplex clicks away, another radio sits in the background, quietly spitting out atmospheric noise. It's an AM Broadcast receiver, one of those 5 tube AC/DC models produced by the millions. This unit--an Arvin in an Art Deco plastic cabinet--is tuned to one of two triangular markings on the dial. Suddenly, the silence is shattered by a piercing 1000 cycle tone. The ham looks up, rips off his headphones, and listens to a message. He jumps from the chair, runs to the door and yells to his wife "Grab the kids and go down to the Fallout Shelter. The CONELRAD alarm just went off". CONELRAD, which stood for "Control of Electromagnetic Radiations", had its embryonic start in December, 1951 when President Harry Truman signed an Executive Order directing the FCC to set up a security system for all civilian radio services. Throughout 1952, CONELRAD was developed and tested and, by early 1953, it was ready. The purpose of CONELRAD was to relay Civil Defense information to the public without allowing enemy aircraft to use our radio signals as a beacon for their direction finding equipment. In the event of

an emergency, all FM, TV and most AM stations would proceed with the following alarm sequence:
CURRENT PROGRAMMING DISCONTINUED
5 SECONDS-CARRIER OFF THE AIR
5 SECONDS-UNMODULATED CARRIER
5 SECONDS-CARRIER OFF THE AIR
15 SECONDS-1000 CYCLE MODULATED CARRIER
1 MINUTE MAXIMUM-INITIAL CONELRAD MESSAGE CARRIER OFF THE AIR
FOR THE DURATION OF THE ALERT
The remaining AM stations would shift to either 640 or 1240 kc and simultaneously broadcast a more detailed emergency message. The stations would constantly turn their carriers on and off. For example, Station A, operating on 640 kc, would broadcast the emergency message for 15 seconds and suddenly cut its carrier. The public would then hear Station B, also on 640 kc, with the same message. When Station B went silent, Station C would appear and, after a few seconds, Station A would be back on the air. This "cluster pattern" would continue until the emergency message had been broadcast. The same activity would be happening on 1240 kc. No call signs or other ID would be given. In this way, the FCC and the Office of Civil Defense hoped to confuse enemy aircraft trying to use AM radio stations as a homing beacon.
The ARRL and the FCC realized that amateur stations might also serve as a beacon. Therefore, from the beginning, amateurs were urged to keep watch on 640 or 1240 kc, and to kill their transmitters when the alarm was given. With the importance of CONELRAD in the early 1950's, it's surprising that amateurs were not required to monitor for the CONELRAD alarm. This was rectified on January 2, 1957 when the FCC amended Part 12 of the Rules and Regulations to require the following:
All operators of stations in the Amateur Radio Service will be responsible for the reception of the CONELRAD RADIO ALERT by monitoring 640 or 1240 kc.
During a CONELRAD RADIO ALERT, all operators of Amateur Radio Stations will CEASE COMMUNICATIONS IMMEDIATELY.
Stations operating under the Radio Amateur Civil Emergency Service (RACES), and other stations specifically authorized, would be allowed to remain on the air under the following restrictions:
a) No transmission shall be made unless it is of extreme emergency, affecting the National Safety, or the Safety of life and property;
b) Transmissions shall be as short as possible;
c) No station identification or location shall be given.
Tactical calls will be utilized if necessary.
d) The radio station carrier shall be discontinued during periods of no message transmission.
Amateur Stations shall not allowed back on the air until the CONELRAD RADIO ALL CLEAR MESSAGE is transmitted.
With the requirement of continuous Broadcast Band monitoring, homebrew projects, kits, and commercial products began to appear to help the Amateur keep in compliance with Part 12.190. While some Amateurs simply used an AM radio, others bought or built specific CONELRAD receivers. Heathkit had the CA-1 CONELRAD Alarm; Morrow Radio had the CM-1 CONELRAD Monitor; and the Walter Ashe Radio Co. had the model CA "Conelarm". Radio Shack's first transistor radio, which sold for a mere $29.95 in 1958 dollars, was advertised as "perfect for monitoring CONELRAD".
When Class D CB Radio was authorized in September, 1958, the rules specified that CB'ers also had to monitor CONELRAD. In the event of an emergency, all Citizen Band operators had to leave the air--there was no RACES provision for them.
By the early 1960's, the possibility of long range enemy bombers homing in on our radio signals was becoming remote. Instead, Intercontinental Ballistic Missiles were the new threat. They didn't require our broadcast signals as Beacons. CONELRAD was becoming obsolete. Thus, in the autumn of 1962, CONELRAD was replaced by the Emergency Broadcast System. Ironically, CONELRAD disappeared right around the time it might have been needed the most--the Cuban Missile Crisis.
As the 1960's wore on, the Cold War gradually dissipated, and the Specter of imminent enemy attack disappeared. Today, only the faded "Fallout Shelter" signs, and those triangular markings on old AM radios remain to remind us of CONELRAD and the Cold War. As I write this, I can hear a Springfield Mass station on 640 khz, while a hetrodyne of Class 4 stations co-mingles on 1240.
And yet, what is that I hear, faintly in the background?? A 1000 cycle tone??

The History Of Amateur Radio Chapter 30

The early 1950's were not a time of peace and security in the United States. The Korean War was in full force, with the constant threat of Communist Chinese intervention. The Iron Curtain cut Eastern Europe off from the Free World. The Soviet Union developed their own atomic weapons. Communists, real and imagined, roamed the United States, with Senator Joseph McCarthy in hot pursuit. Writers, actors, and directors suffered under the Hollywood Blacklist. In other words, the "Fabulous Fifties" were still a couple of years away.

Amateurs were on the air, but many feared that the FCC would eventually suspend operations, as they had during WWII. Amazingly, despite what QST called a "national emergency", there was no Civil Defense program in place to utilize amateur radio operators in case of enemy attack or natural disasters. The previous Civil Defense program--the War Emergency Radio Service- -W.E.R.S. for short--had been out of service since 1945. Even in its heyday, W.E.R.S. had many shortcomings. It wasn't established until June 1942--7 months after the war started. It was limited to the 2 1/2 & 1 1/4 meter amateur bands, with no HF frequencies. Finally, W.E.R.S. operations, other than on the air drills, were limited to actual enemy activity. There was no provision for W.E.R.S. to be used during natural disasters. The ARRL, FCC, and Civil Defense leaders learned from the mistakes of W.E.R.S., and were determined to have a viable radio Civil Defense program in place before it was needed. Thus, on December 19, 1951, at the same time that CONELRAD was announced, the FCC released the proposed regulations for RACES- -The Radio Amateur Civil Emergency Service. On August 15, 1952, the final RACES regulations were put into effect. Amateur Radio operators now had a Civil Defense program in place that would utilize their communications skills. Before a RACES unit could be authorized, there were some requirements that had to be met. First, the local government needed a Civil Defense organization and a Communications Plan. The local Plan had to be approved at the State Civil Defense level. Next was the appointment of the RACES Radio Officer. The Radio Officer, or R.O. for short, had to hold a Conditional, General, Advanced, or Extra Class amateur license, or a first or second class commercial radiotelegraph or radiotelephone license. The potential Radio Officer submitted FCC Form 482 to receive certification--provided, of course, that they passed the loyalty investigation. Note that the Radio Officer did not need to be an amateur. The FCC and Civil Defense experts determined that about 25,000 amateurs might be available for RACES authorization. However, in a full scale national emergency, up to 200,000 radio operators would be needed. Thus, provisions were incorporated for qualified commercial licensees to become part of the RACES program. After the Communications Plan was approved and the Radio Officer was certified, station authorizations could be issued. Amateurs submitted FCC Form 481 to have their station license made valid for RACES operation. Novices and Technicians were not eligible for RACES authorizations. The FCC and the ARRL emphasized that membership in RACES was NOT an invitation to continue casual amateur radio activity in a war. RACES was strictly dedicated to public service, under the direction and control of the local C.D. unit.

The frequencies initially allocated to RACES were:

1800-2000 kc (subject to LORAN restrictions)
3500-3510 kc
3990-4000 kc
28.55-28.75 mc
29.45-29.65 mc
50.35-50.75 mc
53.35-53.75 mc
145.17-145.71 mc
146.79-147.33 mc
220-225 mc

In addition, 1750-1800 kc (which was outside of our 160 meter band) was allowed under Disaster Communications Service. Note that the initial frequencies did not include the 40, 20 and 15 meter bands. The 15 meter band was not yet available to amateurs when RACES was first proposed. Later, 40, 20 and 15 were added, and the 75 meter phone segment was expanded. Reaction to the RACES frequencies was mixed. Some were upset that they were insufficient, and were not exclusive to RACES. Others thought of it as a diabolical plot on the part of government agencies and commercial interests to grab parts of the amateur bands for non amateur use by non amateur personnel. RACES was never used during an enemy attack. Over the years, however, it proved its value in countless natural disasters. Frequencies were expanded, and Novices and Technicians were brought into the fold. One interesting fact about RACES--it was designed to be a TEMPORARY service. The initial regulations indicated that it would be discontinued after the termination of the national emergency. CONELRAD has been gone for 37 years, and the "Fallout Shelter" signs are rusting away on the walls of abandoned buildings. Why does RACES--a temporary service--still live? The answer is found in every natural disaster that hits the U.S.--every tornado, hurricane, flood, earthquake, blizzard and fire. Every time dedicated amateurs, working with their local C.D. Officials, provide effective emergency communications, they keep a "temporary" service alive.

In our next installment we will explore "Long Delayed Echoes". Is there a natural explanation? Or, were they truly something "out of this world"?

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

UP-COMING DX and Dxpeditions

Click the link below to display up-coming Announced DXpeditions:

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

Click on the Hyperlink below to check-out the MLDXCC scores in the latest contests.

http://mldxcc.org/scores.html

UP-COMING CONTESTS (complete)

For the latest contest info. click on the following link:
http://hornucopia.com/contestcal/contestcal.html

July 2015

+ North American QSO Party, RTTY 1800Z, Jul 18 to 0559Z, Jul 19
+ CQ Worldwide VHF Contest 1800Z, Jul 18 to 2100Z, Jul 19
+ Run for the Bacon QRP Contest 0100Z-0300Z, Jul 20
+ NCCC RTTY Sprint 0145Z-0215Z, Jul 24
+ NCCC Sprint 0230Z-0300Z, Jul 24
+ NCCC RTTY Sprint 0145Z-0215Z, Jul 31
+ NCCC Sprint Ladder 0230Z-0300Z, Jul 31

August 2015

+ North American QSO Party, CW 1800Z, Aug 1 to 0559Z, Aug 2
+ ARRL August UHF Contest 1800Z, Aug 1 to 1800Z, Aug 2
+ NCCC RTTY Sprint 0145Z-0215Z, Aug 7
+ NCCC Sprint Ladder 0230Z-0300Z, Aug 7
+ WAE DX Contest, CW 0000Z, Aug 8 to 2359Z, Aug 9
+ Maryland-DC QSO Party 1600Z, Aug 8 to 0400Z, Aug 9 and 1600Z-2400Z, Aug 9
+ 50 MHz Fall Sprint 2300Z, Aug 8 to 0300Z, Aug 9
+ NCCC RTTY Sprint 0145Z-0215Z, Aug 14
+ NCCC Sprint Ladder 0230Z-0300Z, Aug 14
+ SARTG WW RTTY Contest 0000Z-0800Z, Aug 15 and 1600Z-2400Z, Aug 15 and 0800Z-1600Z, Aug 16
+ ARRL 10 GHz and Up Contest 0600 local, Aug 15 to 2400 local, Aug 16
+ North American QSO Party, SSB 1800Z, Aug 15 to 0559Z, Aug 16
+ Feld Hell Sprint 2000Z-2159Z, Aug 15
+ ARRL Rookie Roundup, RTTY 1800Z-2359Z, Aug 16
+ NCCC RTTY Sprint 0145Z-0215Z, Aug 21
+ NCCC Sprint Ladder 0230Z-0300Z, Aug 21
+ Hawaii QSO Party 0400Z, Aug 22 to 0400Z, Aug 24
+ Ohio QSO Party 1600Z, Aug 22 to 0400Z, Aug 23
+ NCCC RTTY Sprint 0145Z-0215Z, Aug 28
+ NCCC Sprint Ladder 0230Z-0300Z, Aug 28
+ Kansas QSO Party 1400Z, Aug 29 to 0200Z, Aug 30 and 1400Z-2000Z, Aug 30

The MLDXCC NEWSLETTER

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