

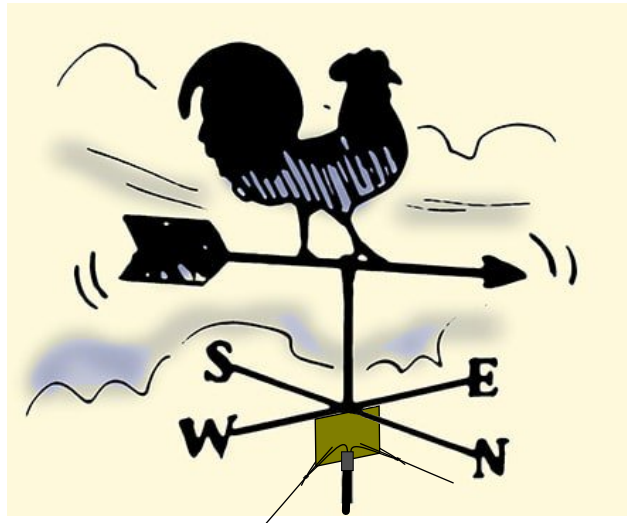
The **MERCURY MicroVolt**

MARCH 2018 VOLUME 18, No. 3

Mercury Amateur Radio Association - MARA
North America - North East

March, the month of weather variations, where the saying, "In like a lion, out like a lamb" holds some truth to it.

A month where you stay inside keeping warm while you dream.
And hope your antennas stay up!



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FROM THE DESK OF THE PRESIDENT



In the last three decades I have experienced three hurricanes, an ice storm, and 9-11. In each instance phone service was disabled either due to lines being downed or the system being overwhelmed. Those occasions have taught me the wisdom of being prepared.

How about you? What major events disrupted telephone service, blocked roads, and forced you into being self reliant in ways you never expected? Share them with us. You don't need to write a ten page essay unless you want to do so. A paragraph or two describing the cause of the disturbance, and

what special actions where required of you to remain safe during the effects precipitated by the event. Expound on how amateur radio helped if used during the time.



Forward your paragraphs to VE1VQ@eastlink.ca and we will share one a month until we run out.

73,
Chuck
WD4HXG

Grandma Mara's RAMBLINGS...

Last month, I mentioned that the old folks believed that bad things (like deaths or accidents) happened in threes. I'm happy to report that did not come to pass in this case. At least not that I know of! I'm sure there were other "bad" happenings, but Grandma doesn't usually listen to

the news, as there's not much good to listen to on any of the local radio or television stations. Only a litany of never ending murder and mayhem, disaster and catastrophe, pain and suffering. I prefer to hear what my grandchildren want to tell or text me about their day's efforts at school, or what they are doing with their friends. They are a lot more positive about life than anything the media portrays.

For those who've e-mailed and called, Walter wants you to know he is doing just fine! He is taking the physical things a bit easier, or not as intensive as before. When the weather permits, he is walking outside more; when the weather doesn't, we go to the local mall and do our walking there. We've also started parking farther from the doors of stores toward the outer spots in parking lots. Not only does this give us more distance to walk but it also saves us door dings to our vehicle. It's amazing how many people feel the need to park as close to the establishment doors as they possibly can, even if they can barely squeeze into the spot. And, now if we can, we take the stairs instead of using elevators and escalators.

I've had some e-mails from Wendy since her return to the west coast. She told me about some of the projects she is involved in, some to do with miniaturization in antenna design, and others with safety around high voltage electrical fields and equipment. Makes me wish I was back in university again - almost!

Wendy isn't sure if she will be able to get home for much time this coming summer. She has a line on a couple of summer jobs in engineering areas she would like to learn more about, so she feels if she can get hired on to one of them, it would be good for her future. She did promise that she would be able to make it home for a week or so at the end of the summer.

Summer. Isn't that a great sounding word right about now. It stirs up memories of green leaves and the smell of cut grass, and those warm breezes. Oh well, only another month or so - one can but hope!

In the last month, Red passed her Technician level

For those who've e-mailed and called, Walter wants you to know he is doing just fine!

SILENT KEY

GEORGE FRANCIS GRATTO VE1GFG



We regret to inform you of the passing of MARA North East member George Gratto, VE1GFG.

George Francis Gratto – 69, Truro Heights, passed away Saturday morning, February 3, 2018, at Colchester East Hants Health Centre, Truro. Born in Truro, he was a son of the late Francis and Anna (Kinny) Gratto.

George was a member of The Church of Jesus Christ of Latter-Day Saints, a retired member of Cobequid District Fire Brigade and a very active and enthusiastic ham radio operator. (VE1GFG)

George is survived by his wife, Anne MacDonald; siblings, Barb (Kevin) Carvell, Saint John, New Brunswick; Lorraine (Bruce) Raymond, Truro Heights; Rose (Steve) O'Connell, Victoria, British Columbia; Gloria Gratto (Budd Cotton), Amherst; several nieces and nephews. Along with his parents, he was predeceased by his uncle, George Gratto.

TECH AND OTHER STUFF

PACIFIC ANTENNAS TRAP 40/20 DIPOLE

Back in January's newsletter I mentioned ordering Pacific Antenna's *dual band trapped dipole antenna* from QRP KITS in California. It took a few weeks but it eventually showed up in the western post office box. Canada Post charged me nearly \$10 to "handle" the package. Used to be that small packages would come direct to the local post office without any extra "handling".

Like many kits these days, you are expected to download and print the assembly instructions from the web site (<http://www.qrpkits.com/files/2040Dipole20170922.pdf>).

Checking the parts off against the contents list and

ticket. Her parents got her a good used hand held as an early birthday present from one of Walter's friends who was selling off some of his surplus gear. She has a few friends around her age or a little older on the local repeaters, and also a few of the seniors over at the center. The latter are quick to answer her when she puts her call sign out on the air. It's kind of cute when she calls, because if her younger friends don't respond, there will be several seconds of silence, and then one or more of the seniors will come back to her. Turns into a pile-up at times.

I heard her tell someone the other day, on one of the repeaters, that she was studying for her General. She phones Walter now and then when she gets stuck on something. She won't look at the question pool. She has said she wants to try to understand what she is studying, not just memorize an answer.

We've had her over to the house on a fairly regular basis. Walter has had her build a Twin-T audio oscillator and an LM386 audio amplifier, so she can become familiar with printed circuit board design and construction, and soldering techniques, as well as basic troubleshooting with a digital test meter and an oscilloscope.

The seniors are going strong over at the residence. They are planning on another Technician class beginning in March. This time it will mostly be taught by the seniors themselves, with Walter again overseeing things. They've even gotten a couple of the residents accredited as VEs who will perform the testing. Interest is also building for another General license course. Most of the seniors are content to remain Techs and operate on their hand-helds, but some "hear the call" of HF and want to move upward.

Another interesting development with the seniors is that a second retirement center in the area has taken note of the success with this one and put out feelers to do the same at their location. Fred and Emily and Walter have been over to give them a presentation, and they had a very positive response. Turns out that two individuals there (unknown to each other) had tickets but hadn't been active for years. Plans are in the works.

That's it for this month. I hope we can soon get the lawn mower out, and put away the long johns.

the picture on page two of those instructions found everything to be accounted for.

It's not a very difficult kit to assemble. One part where you need to take special care is when you have to measure the wire lengths for the coils and the antenna sections. They even quote the old saying to "measure twice, cut once".

I stuck some short pieces of painter's tape on the basement floor marking the zero or start spot (at a wall), and the others at the 8'7", 9'4", and 17' wire lengths. Then I

stretched out the wire to these marks and cut two pieces of each length. After they were all cut, I put them in pairs and taped them together with the length marked on the piece of tape.

Another point where you may make a mistake is in counting the turns as you

wind the coils. Every time you complete a turn it counts as one turn. Count them several times to verify the number before you trim off the excess length. For me, that extra was about two inches on one end of the coil form and about four inches on the other end.

I held the windings in place with more of the painters tape. Using a toothpick, I put a small dab



Liquid Electrical Tape from Walmart. Harbor Freight has the same thing at twice the price.



Trap coils after winding. Liquid Electrical Tape has been applied to the wire where it passes through the holes. The wire has not been trimmed to length to fit into the printed circuit boards.

of Liquid Electrical Tape on the inside of the coil form where the wire comes through the hole. A small amount of weather proofing caulk would do just as well. Once the stuff is cured, it will keep the winding tight when the tape is removed, until the shrink tubing is in place.

Now to wait for some warmer weather when the snow is gone and I can get outside to test it. As I write this in mid February, there's about two feet of the cold white stuff on the grass behind the house. As soon as it starts looking low and the grass is peeking through, some more falls out of the sky. Not at all conducive to antenna work.

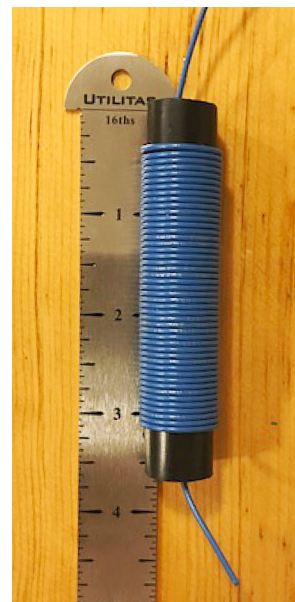
This is not an antenna you would expect to survive a hurricane or a typhoon - but it is one you could have on hand to put up after the heavy blow manages to mangle your main one.

OPERATING QRP

One of the great things about operating QRP (Low Power - five watts or less output on CW and ten watts or less on SSB) is the thrill you get out of contacting someone - without having to dim the lights of every house on the block by using your multi-multi-kilowatt amplifier. With a rig the size of a pack of playing cards that you can build yourself, and a simple antenna (a dipole or an end-fed), it is possible to communicate with another ham on the opposite side of the globe.

Because you are operating with low power levels, rigs, tuners and antennas are much less costly to build. But don't be fooled by the price. The specs on some of these tiny rigs can equal those produced by the big Japanese manufacturers.

There are lots of kits or semi-kits from suppliers, available on-line, that you can build from scratch or put together from pre-assembled circuit boards. Below, is a very small sampling of web sites where you can take a look for rigs and/or accessories.



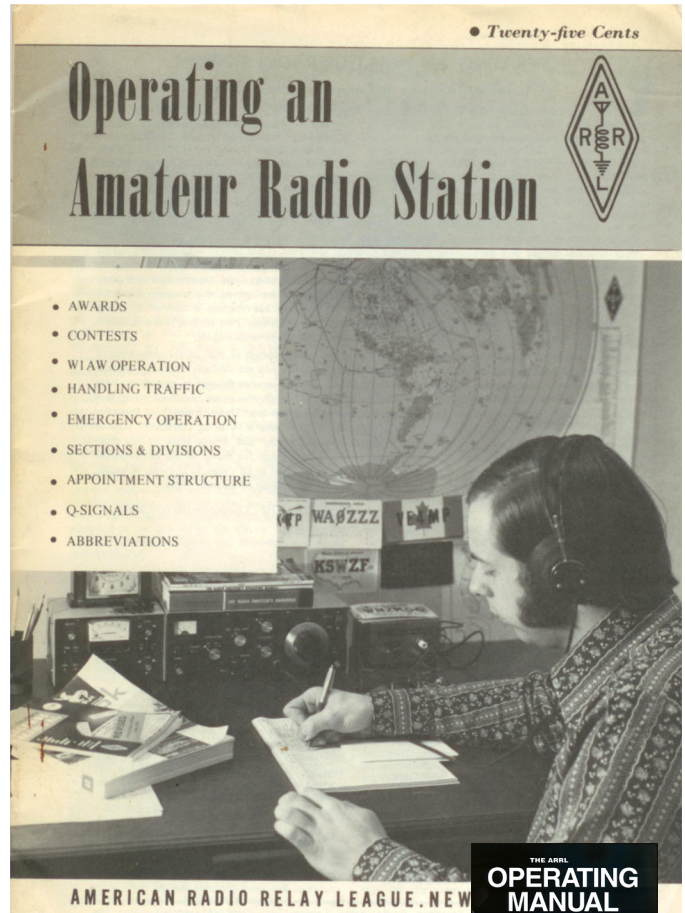
<http://www.kitsandparts.com/1watter-V3.php>
<https://qrp-labs.com/qcx.html>
<http://www.qrpkits.com/>
<https://qrpguys.com/>
<http://www.elecraft.com/>

There are many e-mail reflectors dealing with specific qrp rigs and accessories. However, for things more of a general nature, QRP-L has been around the longest. Its relevance has waxed and waned over the years, but it's still a good place to start. The second one down has more of a British and European flavor and is based in G-land.

<http://mailman.qth.net/mailman/listinfo/qrp-l>
<https://groups.yahoo.com/neo/groups/GQRP>

If you want to know more about qrp, ask at your local radio club, or check on-line. Your local club may well have an active qrp sub-group. There are also area or regional qrp clubs in various parts of the US and Canada.

If you seek, you shall find!



Now here's one that you may remember! Perhaps some of you even sported side burns like the operator above. Or had a shirt like the one he is wearing. If you had a haircut or a shirt like the ones shown, you were at the height of fashion for the day.

Contrast that with the cover of the latest edition. Just about everything has changed. Including the price - now at \$24.95.

At least headphones are still in style!

Both covers are from the American Radio Relay League. The older cover picture sent to us by Charlie, WB4FLM.

The MARA NE Newsletter is always looking for articles of interest to LDS Hams.

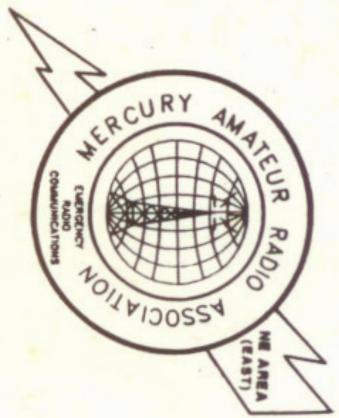
If you have a radio related project, or simply something you think might be of interest to the readers, please contact Dave at VE1VQ@eastlink.ca

Perhaps it is an antenna you made or a new station you assembled, a two meter mobile installation, a new handheld you bought, a field day operation or a mini DX-pedition that you could write about. Whatever it is, we would sure like to hear about it.

QUOTE OF THE MONTH

"Our responsibility is to rise from mediocrity to competence, from failure to achievement."

Thomas S. Monson



MERCURY AMATEUR RADIO ASSOCIATION

NORTH AMERICA NORTHEAST AREA (EAST) CHAPTER (MARA NE)

INFORMATION FOR CHURCH LEADERS 17 Sep 1990

The First Presidency's letter of August 12, 1987 advises stake presidents to "establish access to a shortwave radio operator and equipment and review the procedures for contacting the communications center at the appropriate bishops' central storehouse." The Church publication "Preparing for and Responding to Emergencies: Guidelines for Church Leaders" suggests each stake president call an emergency communications coordinator who owns and is licensed to operate amateur radio equipment - and that such operators be encouraged to participate in the Mercury Amateur Radio Association (MARA). It would also be appropriate for region and ward emergency communication coordinators to be called.

The Church sponsors the Mercury Amateur Radio Association which is a group of amateur radio operators working together worldwide to provide emergency communications. It currently has some 1600 members. Although MARA is sponsored by The Church of Jesus Christ of Latter-day Saints it also serves other emergency organizations as needed (for example, during the recent Mexico City earthquake, more traffic was handled for the Catholic Church than for The Church of Jesus Christ of Latter-day Saints). MARA is open to all radio amateurs regardless of church affiliation.

MARA is headquartered in Salt Lake City. The organization worldwide parallels the Church organization of Areas, Regions, Stakes and Wards or Branches

The MARA Northeast Area (East) Chapter (MARA NE) serves LDS Church leaders in the area covered by the Maryland (Wash. DC) Bishops' Central Storehouse. This area covers roughly northern Virginia and northward to include the maritime provinces of Canada. It extends inland to include the province of Ontario and the states of New York, Pennsylvania, Maryland and West Virginia. The area has 16 Church Regions, 67 Stakes and 526 Wards and Branches.

In the event of failure or overload of normal telephone lines, MARA radio communications would link Church officers by message and voice for reporting of disaster conditions and requesting assistance.

Reliable radio communication outside of local areas usually requires relaying of messages. To this end MARA NE has established a network of stations which can relay messages between leaders of wards, stakes and regional welfare advisory councils. Messages can also be sent to the Area Presidency in Salt Lake City; and to the Bishops' Central Storehouse at Washington DC.

The operators of these stations are licensed amateur radio operators who have joined MARA and made their equipment and training available. MARA NE provides these operators with training and practice in handling of emergency messages.

In the U.S., amateur radio licenses are issued based on passing tests of Morse code, radio and electronic theory and operating rules. The following five classes of licenses are issued:

| | |
|------------|----------|
| Novice | Advanced |
| Technician | Extra |
| General | |

Each higher class allows increased privileges of frequency usage and modes of operation. A General class license is required to operate fully in the Area nets, although Novices and Technicians can have worthwhile participation. In Canada, three classes are issued - with privileges essentially equivalent to the Novice, General and Extra U.S. classes. Note that licensed amateur operators are distinct from Cbers.

MARA NE can provide a list of licensed LDS operators identified in each region to assist Church leaders in making calls of emergency communication coordinators. It is suggested that those called be invited to also serve on the appropriate unit Welfare Committee. Working relationships between emergency communicators and those whom they serve need to be established well before emergency needs.

For further information on MARA NE contact the Bishops' Central Storehouse Manager:
Robert Jones
7979 Penn Randall Place
Upper Marlboro, MD 20772
The telephone is:
301-735-5131

To prepare for emergencies, amateur radio operators handle greeting messages throughout the U.S. and Canada on a daily basis. Church leaders and members are encouraged to make use of this service to help keep our MARA members trained. Such use will also serve to familiarize Church leaders with radiograms, which have characteristics distinct from either letters or telephone calls. Contact any MARA member to send a greeting message.

MARA NE/NG2R

DI-DAH-DI-DAH!

I never met George, VE1GFG, in person, nor did I ever communicate with him via radio, although we did talk on the phone several times. Seemed like when I happened to be in or near Truro Heights, the town where he lived in Nova Scotia, we were both busy, or I was passing through on my way to business somewhere in the northern end of the province and we couldn't get together. You think there is always next time, next week, next month, or next year.

Having membership in the Church of Jesus Christ of Latter-Day Saints and having amateur radio as a common hobby (some would say more an obsession than a hobby!) brings people together in a way that is much more than just one of the two. Those outside the two groups would not understand.

I do know that George was fascinated with ham radio, this from speaking with him on those few occasions, and in the e-mails we sent back and forth

I guess the moral of this little story, if there is one, is not to wait for the "right time" and continue to

put these things off. Make that effort to get together with friends and family.

You never know when it will be too late!

Until next month,
VE1VQ