

The NEWSLETTER

SEPTEMBER 2015 VOLUME 15, No. 8

Mercury Amateur Radio Association - MARA
North America - North East

I GOT MY HAM LICENSE
OVER SUMMER VACATION!
WHAT DID YOU DO FOR
EXCITEMENT, C.B.?



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E-mail your comments, ideas, or submissions to marane@mara.net or to ve1vq@eastlink.ca

Grandma Mara's RAMBLINGS...

Grandma now has a more or less matched set of feet, having paid another serious visit to the sawbones near the beginning of August. Having gone through this previously for the first foot, I knew what to expect; and that was to plan on a couple of months of misery. But, I also knew that things would eventually get better.

Walter was, once again, his usual helpful type husband. And as before, we had food prepared and stored in the freezer. I don't know what I'd do without that man! Not only does he take care of my needs, and wants, but he also makes sure I have the right antenna connected to the bed-side rig. How many OMs would do that?

On a more pleasant note, over the summer Wendy and her father set up a station to work the satellites. The whole family researched what they needed in the way of a rig, coax and antenna. They consulted with Walter after narrowing down the hardware choices. Then, once the equipment was in hand, they planned the installation carefully. Again, with Walter acting as consultant, Wendy's dad and brother mounted the antenna well in the clear. He kept a close eye on the coaxial connectors being soldered and had her brother run a quick test with an ohmmeter. Then Walter showed them how to test the antenna installation with an antenna analyser. When everything was installed and checked out, Walter gave them a thumb's up on a job well done.

I don't know where he gets all of his smarts. That man continues to amaze me with the skills and talents he has. Always modest, he just says it is a gift he has been given so that he can share it with others.

We all need to think like he does. We all have been given gifts of one kind or another. We need to recognize them. We need to develop them. And we need to share them with those around us.

AR

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TECH AND OTHER STUFF

All of the planets (figuratively speaking) finally came into alignment in mid August, and I got my *TenTec 506* QRP rig, the *NEScaf audio filter*, the *QRPkits Balanced Line Tuner+*, and the squid pole antenna finished as needed, and connected up. What with work, family, and church obligations, coupled with my natural tendency to procrastinate, this was no small task!

I set up the equipment in a corner of my den, running the coax out through a convenient window, to the antenna on the front lawn, making sure to stay well clear of the overhead power lines.

Power for the gear came from a *low-cost store-bought conventional (linear) 13.8V power supply from ABRA Electronics*. Sadly, (or perhaps not!) you can't build a



Minimalist QRP station. From left to right is the NEScaf audio filter with a set of Apple iPhone ear buds, the TenTec 506, then the BLT+ tuner, and the DC power supply. In front of the power supply is the Speed-X key. Not shown is the voltage distribution board. It is located on a shelf just under the power supply. RG-58 coaxial cable feeds the antenna out through the window curtains behind the gear.

power supply for less money any more. I used a *DPS Technologies DM4-PTC* voltage distribution module. It provides four outputs, each protected by a ptc (resettable fuse) device. My trusty (but not rusty) ol' *Speed-X oval straight key* completed the station set-up.

I used my antenna analyser to adjust the wire spiral on the fibreglass pole to resonance in the vicinity of 7.030 MHz, the 40 Meter QRP frequency. I knew I didn't have to be too particular because the tuner would take care of minor differences.

Some of you reading this might wonder why there is no SWR meter in the line to show the actual number. Remember, the tuner has an LED which shows when the match is at its best, just not the actual value. Whether the point of the lowest reading is at 1.1 or 2.1 makes not a whole lot of difference to the distant station.

It has somehow become embedded in the ham culture that a zero (no reflected power) indication on the SWR

meter is absolutely necessary (for what, they're not quite sure). In reality, all it means is that their rig is "seeing" a resistive fifty ohm load (with little or no reactance). Mind you, too high an SWR at the transmitter connector may make the output power level fold back to protect the amplifier transistors, or if there is no protection may cause the "final" to fail.

As the saying goes, "don't sweat the small stuff" by obsessing over a slight upswing in your SWR meter's pointer in the reverse position. With the tuner I have, you tune for minimum LED brightness. Having the LED go out completely is nice, but a minimum is sufficient.

The TenTec 506 covers 40 and 20 Meters, with computer style jumpers (inside the case) to make the band change. You have to take the cover off to perform the operation. I have the completed circuit board to make the modification for band switching. One of these days I'll get around to installing it.

PAC-12 VERTICAL ANTENNA

James Bennett's (KA5DVS) article about a easy-to-build and easy-to-erect vertical antenna was originally published in issue #8 of QRP Homebrewer magazine (no longer in publication). I wasn't able to find a date for that issue but he did mention entering the antenna in a shoot-out at a [Pacificon](#) conference in October 2001, where it took first in efficiency as compared to a 1/4 wave vertical. Which may mean that it was very efficient or that the other contenders were really bad!

James sold the antenna kits for a while under the Pacific Antenna name, but those have not been available for some time. Recently, he purchased [QRPKits.com](#), a supplier of excellent kits and parts for the QRP sector. The site promises to make the PAC-12 available again soon.

You can look at the manual on the QRPKits web site at <http://www.qrpkits.com/pac12.html> and you can also view the original article at <http://www.njqrp.org/pac-12/>. Reading the two will give you enough information to build your own.



The telescoping whip originally used came from Radio Shack. With the demise of the "Shack", that's no longer going to happen. E-Bay doesn't seem to have anything close in size but the [Buddipole web site](#) lists one that extends from 13" to 66" that would come close. They also have a lightweight one that goes out to 72 inches. You can check the former out at <http://www.buddipole.com/stainsteelte.html>.

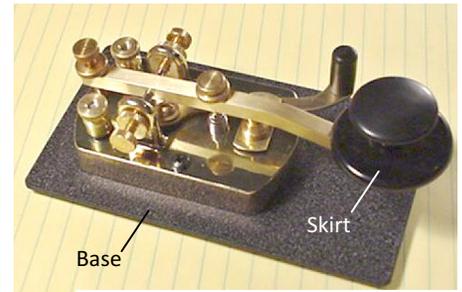
The original idea was that the parts (excepting the Radio Shack telescoping antenna) were available from the home building supply stores such as Home Depot and Lowes. Things have changed over the last fifteen years and items may have been dropped from inventory, so it might be a little more of a challenge now than it was back in the "good ol' days".

If KA5DVS and QRPKits bring the antenna back, I'm in hopes that they will make the individual components available for sale.

MILESTONE TECHNOLOGIES

Over the summer, I placed an order for a couple of small items from [Milestone Technologies](#). They sell various types of Morse keys from straight to bug to paddle and manufacturers from Nye and MFJ to those from China, Japan, and Germany.

I ordered a metal base and navy knob skirt for my oval Speed-X key using the on-line ordering function. I wanted to see what the service was like. When I was entering my credit card information I made an unintentional mistake on the expiry date. Within a very short time I had a phone call to my cell phone from Marshall Emm, the owner, saying that my card had been rejected with no explanation. We quickly figured out the problem, he made the correction while we were talking, and the sale went through. As I write this (in mid-July), the stuff is in the tender hands of the US Post Office, having travelled from Colorado to Los Angeles to Louisville, to Montreal and back to Los Angeles (?). We were doing so well until the package took a wrong turn in Montreal. I'm waiting to see if a real person actually reads the address label and sends it towards the east coast again.



Nye key base and Navy knob skirt shown with a rectangular key. Original photo from Milestone Technologies.

CW AUDIO FILTER

The first receiver I had in my ham "career" was a HeathKit HR-10. Selective it was not! After a few years of trying to separate out CW signals in my head I found a passive filter centered at 1000 Hz at the local surplus outlet which was fantastic (compared to copying without it). That was when everybody seemed to feel you had to copy CW at a 1000 Hz. Perhaps that was before a lot of us got old and our hearing was still good!

Some years later, MFJ came out with their model 726 active filter. Wisdom had now dropped the copy frequency down to 750 Hz. This thing was even better than the afore mentioned passive filter with its very pronounced insertion loss.



MFJ 726 op amp filter

By today's standards, the board and the quality were kind of crude. However, it worked well. I'm not sure where it went but I haven't seen it for a long time.

A while ago, I found I needed a CW audio filter for the [TenTec 506](#). I've kind of gone off MFJ after having quality problems with the last several items purchased from them. I came across the [NEScaf filter](#) from the [New England QRP Club](#). I liked what I saw in the specs on their web site so I ordered one, along with the optional connector kit. The two front panel variable resistors let you adjust both the bandwidth and the center frequency.

Recently, they announced it was being discontinued as soon as the current stock of kits was gone. Within a day of the announcement (July 23rd) on the QRP-L e-mail reflector, they were sold out.

If you didn't get one of these, there are other audio filter designs available, from different sources. From Idiom Press, in kit or assembled form, is the [SCAF-1](#). There is the [Hy-Per-Mite](#) by the Four State QRP Group, or the [AF-1](#) from Elecraft, and there is the [CALF](#) by KC9ON.



Another site to look at for examples is <http://qrqwnet.ning.com/forum/topics/cw-audio-filter-showcase>. Along with the active filters they have a couple of passive filters that look interesting. Unlike my old one of years ago, these are centered lower around 750 Hz.

Whichever one you use, an audio filter is a definite improvement to almost any QRP receiver. Even some full power rigs!

HURRICANES AND GENERATORS

Hurricane season is here. Before one comes calling to your town, you might want to start your generator up and run it under load for a few minutes, just to make sure it works.

A better plan is to test your generator several times a year, not the day just before the big blow. Then, if it fails, you have the time to either take it to a repair shop, or fix it yourself.

Get some gas containers and fill them up before the power lines come down. Then if the lights stay on in your neighborhood and you don't use the gas, pour it into your vehicle. Make sure you do this regularly, and promptly refill the container for future needs. Recycling it in this manner keeps it from going bad and unusable when you really need it.

Always handy to have a container or two of gas around - for whatever reason - just in case!



ANNUAL MEETING

The Executive of the Mercury Amateur Radio Association - North East have set the date for the annual meeting for Saturday the 24th of October at 9 am. It will be held on Skype (audio only), like last year.

To minimize last minute scrambles you are encouraged to check your Skype set up for proper operation. In the event you do not have Skype loaded on your computer you can download the application at:

www.skype.com

Skype requires that you exchange calling credentials between the connecting parties. Exchange credentials with "tarheelcharlie" the host for the conference call.

Please note that credential exchange is a Skype mandated process. This apparently mitigates unwanted callers rattling your cage. It is nice to avoid the telemarketers and solicitors. If you wish to use Skype to directly contact other MARA ops outside of the Conference Call set up, you will need

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to exchange credentials with each operator, not just the Conference Call Host.)

If you have not used Skype before then use the following procedure to set up for the conference call.

1. Launch the Skype application.
2. If you have not already created your own "UserID" then do it now.
3. Under your UserID in the upper left corner of the Skype application there is a label called "Search". Click on it. "Search" will disappear. Your cursor will blink in the location where the word "Search" appeared initially. Type in the UserID "tarheelcharlie" but exclude the quotation marks. Then press "Enter"
4. Within a couple of seconds you should see "tarheelcharlie" appear below the search field with an avatar of a 1960's pilot wearing a helmet.
5. Click on the "tarheelcharlie" in the Search results listing with your mouse.
6. You will be presented with a label approximately in the middle of the Skype interface at the top. Just below tarheelcharlie's UserID you should see a text string with "tarheelcharlie is not in your contacts". Right below it will be a blue oval with white letters "Add to Contacts". Click on the blue oval button.
7. You will be presented with a rectangle that encloses text saying, "Send a contact request", and "Hi tarheelcharlie, I'd like to add you as a contact". Another blue oval encompassing the text "Send" is right below. Click on the blue oval.
8. At that point the request will be sent to me and I will respond by approving you for contact.
9. I recommend once you receive verification of the "Contact Request" credential exchange that you initiate a call to me. In general I am up at 3 AM and leave the house by 4 AM. Normally I return to the house by 4 PM and remain up till 8 PM. During the weekends call anytime.

If you do not want your UserID published among the MARA users please let me know. In general as a user exchanges credentials with me I publish the user's id with their callsign for other MARA ops to add to their list of potential contacts. This is not a requirement and your privacy will be respected by NOT PUBLISHING your contact info if requested.

During the interim if you already have a UserID and have exchanged credentials consider calling into the Saturday Morning Post MARA Net Skype Conference Call held weekly. Looking forward to hearing you. It starts up at 07:30 AM Eastern Time.

73
Chuck WD4HXG

QUOTE OF THE MONTH

"Many of us saw religion as harmless nonsense. Beliefs might lack all supporting evidence but, we thought, if people needed a crutch for consolation, where's the harm? September 11th changed all that."

Richard Dawkins

DI-DAH-DI-DAH ?

In the *July issue* of the Newsletter, I covered some of the things I have learned about the making of a newsletter. Until now, I used *ADOBE InDesign* as the means of pulling all of the text, headings, line drawings, and pictures, etc. together, to make the newsletter, and to convert it into PDF format for the MARA North East web page. This tended to get complicated, what with having to shift back and forth from InDesign to a photo editing program and back and forth to XARA for its various specialty things.

Starting with this issue, I decided I would switch to *XARA DESIGNER PRO*. Before, I had primarily used this software for line drawings and web page creation. Now, it will be used as much as possible for the entire production.

As with any new and different software, the ways of doing things are not the same as with another manufacturer's program. Some view this learning period as drudgery (preferring to want to concentrate on the end product), others as fun (planning the journey is a major part of enjoyment). I happen to be in the latter camp.* I'm looking forward to figuring out new methods of creating these pages. I hope these ways will produce a better end product.

As I've said before in this column, I like to learn. I hope I never stop feeling this way. I hope you don't either.

Until next month,
VEINQ

* One of the few exceptions to this idea of learning new software as “fun” is WINDOWS 8, which I (and many others) detest. It is my fondest hope that MICROSOFT fired those responsible for this abomination. Tar and feathering would be too good for them! Most likely though, they were promoted, and given large bonuses!

By the time you read this, Windows 10 will have been “out” for a month. We will see how good it is. Most reviewers raved on and on ad nauseam about the joys of Windows 8, and then how the upgrade to 8.1 was going to fix all of its ills. Let’s see if they are any more cautious this time.