

The NEWSLETTER

NOVEMBER 2013 VOLUME 13, No. 10

Mercury Amateur Radio Association - MARA

North America - North East

***Always Be
Thankful For
What You
Have,
Not Covetous
For What You
Don't!***



CONTENTS

- 2** GRANDMA MARA'S RAMBLINGS
NO FIGHTS TO DATE!
- 2** BLAST FROM THE PAST
TWO OLD CHURCH NEWS ARTICLES REGARDING MARA
- 4** TECH (and other) STUFF
 - THE K1EL "WinKEYER USB" KEYSER KIT
 - TAKE OUT THE TRASH
 - MORE EZNEC AND SQUIDPOLE
 - MISSING LINK ADDED IN THE OCTOBER NEWSLETTER
- 7** QUOTE OF THE MONTH
ELEANOR ROOSEVELT
- 7** DI-DA-DI-DA-DIT
EVERYONE'S STORY IS INTERESTING

OTHER STUFF

Material contained in this newsletter is copyrighted © by the Mercury Amateur Radio Association North East, or by the individual author where noted. Reproduction of material appearing in this publication is encouraged, as long as the source credit is shown. Permission to reproduce articles copyrighted by the author must be obtained from that individual.

*Links that will take you to web locations referenced in this newsletter are shown in **BOLD blue text**.*

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

Grandma Mara's RAMBLINGS

It's kind of neat how two people who have been living independently on their own for a number of years can, all of a sudden, go from the (carefree!) single life to one of togetherness and sharing.

There have been no arguments to date. I expect there will be at some point, as it is all part of being this close together all of the time. Before, between the first date and the wedding, we were kind of on our best behavior with each other. We also knew that at the end of the day we would each be going back to our respective homes, and that gave us our own space. Now that we're married and together pretty well all of the time, Walter and I think it's even more important to maintain that "best behavior" every day.

Wendy and her family invited us over for the evening meal the first night we were home. They filled us in on their Field Day operation, having set up at the same park location we had used for the two previous years. The ward scouts and their leaders came over on Saturday afternoon, at her invitation, to see what it was all about. Her father explained Field Day and showed them the HF (SSB and PSK31) and VHF stations, letting them each have a turn at the mic or the keyboard. Several came back for more than one go round, perhaps because of genuine interest, or possibly to impress Wendy.

They used a borrowed **Butternut HF9V** vertical antenna with wire radials laid out on the ground for the HF station, and for 2 meters they built a **J-pole antenna** out of some scraps of old 1/2 inch copper pipe and fittings Wendy's brother had found in a dumpster at a house reno project down the street. Her mother informed us construction night was one of the most unusual family home evenings ever; what with the calculating, measuring, cutting, and soldering. A mutual ham friend checked it out with his **MFJ 259B analyzer** and pronounced it FB (fine business) and fairly flat (SWR wise) over the upper two-thirds of the band.

All of Wendy's family said they had a great time both operating and showing off their efforts to the scouts and any curious folks who stopped by.

They all said that it hadn't been the same without us newlyweds. We agreed that next year, Walter and I would again be part of the group effort. And not just for

the final meal of chili and all the fixin's, after the rigs are turned off either!

AR



BLAST FROM THE PAST

Owen, KC7ITA, sent me the links to these two articles, originally published many years ago when M.A.R.A was the active Emergency Communications partner of the Church.

NEWS OF THE CHURCH - FEBRUARY 1985

CQ—CQ—CQ from LDS Radio Group

The Mercury Amateur Radio Association (MARA) is looking for LDS amateur radio operators to prepare for emergency service to fellow Saints and neighbors.

MARA President Allan Packer of Salt Lake City (call letters WA7BKD) said that during natural disasters or other emergencies in their areas, MARA ham radio operators make themselves available to help local priesthood leaders keep contact with other Saints and with Church leaders in Salt Lake City or in other regions of the Church. They may also help meet communication needs of state and local governments or private individuals.

During a hurricane in Hawaii a few years ago, for example, MARA operators on the mainland kept contact with the islands longer than any other amateur shortwave radio net. Following an Idaho earthquake in late 1983, MARA members again served as emergency communicators for priesthood leaders. Then the state's Emergency

Management Office asked if it could join the MARA net because its own communication system was not providing the coverage needed.

In times of emergency, radio amateurs have some advantages over commercial communication networks because they have so many broadcast bands and frequencies available, explained MARA vice-president George Oates (K7BFI). The amateurs also are valuable for their resourcefulness—"the ability to make something work when nothing else does," Brother Allan Packer added.

He explained that the organization has about two hundred members in the continental United States and Canada and in locales throughout the world, including Hawaii, Guam, Tahiti, Western Samoa, Central and South America, South Africa, England, Finland, and Japan. MARA has mailed materials to several hundred Church members who are amateur radio operators, but the organization believes there are other LDS amateurs of whom they are unaware. MARA would like to contact them.

Members get a quarterly bulletin. Past issues have included a series of articles on emergency operations and equipment.

MARA not only provides an opportunity for amateurs with a common bond to train for emergencies, it also serves as "a clearinghouse for information" about setting up local emergency communication systems, Brother Packer said. That way, what has been learned in one area can be applied in another.

To give members a chance to meet, exchange information, and learn from each other, MARA has scheduled its first world convention June 20 to 22 this year at a recreational site near Crater Lake in Oregon, Brother Oates said. Those interested can contact Mercury Northwest net manager Mel Martin (N7BCY), West 242 Loertscher Road, Shelton, Washington 98584, USA, (206) 426-9461. [Silent Key - 2009]

LDS amateurs interested in the Mercury Amateur Radio Association¹ should contact Preben Nielsen² (K7KMZ), secretary, 4902 Wallace Avenue, Salt Lake City, Utah 84117, USA. Or they may tune in to the weekly Mercury radio nets on the 20-, 40-, and 80-meter

amateur bands. (See p. 78 for a listing of frequencies, times, and net managers.)³

¹ Since MARA as a centralized organization is no longer operating, it would be better to check out the various groups found on www.mara.net/groups.htm. Contact the one in your area.

² K7KMZ's address has changed. Check it out on QRZ.COM or one of the other on-line data bases.

³ The net frequencies are not included in this reprint as they are no longer valid.

NEWS OF THE CHURCH - OCTOBER 1989

"In Ham Lingo, Radio Group's Convention Was 'Fine Business'," Ensign, Oct. 1989, 78

Amateur radio operators from as far away as Australia enjoyed "eyeball QSOs" (face-to-face, instead of on-air, meetings) at the third biannual world convention of the Mercury Amateur Radio Association, held in Utah July 20 to 22.

But the convention was devoted to matters far more important than ham radio "rag-chewing." MARA was originally organized to be of service to the Church in times of emergency. Members met for presentations and discussions on a wide variety of topics related to emergency communications and service to Church and communities.

The convention drew 371 registrants to discussion sessions and activities in the Bountiful Utah Val Verda Stake headquarters, ten minutes north of Salt Lake City.

Topics for the radio operators' sessions ranged from the function of stake emergency communication specialists to the use of emergency power sources and operation with low-power radio rigs.

At the opening session on Thursday evening, association president Preben H. Nielsen told MARA members that the organization now has 3,600 members, up from just 109 when it began in 1983. There are concentrations of members in California, Utah, and the northwestern United States, with members also located in most of the other states, in Canada, and in more than twenty other countries.

These MARA members collectively put millions of dollars' worth of radio equipment at Church leaders' disposal when emergency communications are needed. But that fact doesn't mean anything if the radio operators aren't prepared to handle emergency traffic rapidly and effectively, Brother Nielsen said. "You're not helpful to us if you don't participate in the program," he added,

MARA was originally organized to be of service to the Church in times of emergency

MARA not only provides an opportunity for amateurs with a common bond to train for emergencies, it also serves as "a clearinghouse for information" about setting up local emergency communication systems

urging members to take part in regular on-air training sessions and meetings designed to keep them ready for emergencies.

Other speakers at the convention included Gay Lindsay, a member of the steering committee of the Business and Industry Council for Emergency Planning and Preparedness in Los Angeles, who showed a videotape of emergency operations following the Mexico City earthquake in 1985 and reviewed lessons learned from that disaster. Keith McMullin, managing director of Welfare Services, also spoke and thanked MARA members for their service to the Church following disasters.

MARA members now operate, on regular schedules, nearly fifty shortwave radio nets covering or linking regions and localities in the United States and Canada and on other continents as well.

Amateur radio operators interested in MARA may contact* the Church's Welfare Services Department, 50 E. North Temple Street, Salt Lake City, UT 84150.

****[DO NOT CONTACT THE WELFARE DEPARTMENT as M.A.R.A. is no longer associated with the Church - Ed]***

AR

TECH AND OTHER STUFF

by VE1VQ

K1EL WinKEYER USB KIT

Since writing the July article on Morse keys, I got the bug again (pun intended!) to pick up where I left off some years ago, in my quest to conquer the code. I searched for keyers on-line and a lot of reading I placed an order for the K1EL WinKeyer USB kit, and in due course, it arrived at my local post office.



As you can see from the picture of the open box, the kit is well packed. In order to keep costs down there is no accompanying printed instruction manual. Assembly instructions and pictures are available on-line from the [K1EL web site](#). Not quite like some of us might remember from our HeathKit construction days, but bare-bones adequate

nonetheless.

The final picture in this column shows the stuff unpacked, each in its own little plastic bag. The case comes pre-painted and labeled. The printed circuit board is high quality with silk-screening to identify the component location. Software (PC driver and basic operating) is provided on a mini-CD. K1EL even provides a cable to connect the keyer to your computer.

As soon as you open the box, check out the parts against the list in the on-line manual. If you are missing any, e-mail K1EL right away for a replacement. All of mine were there, so construction proceeded.

Inventorying and sorting the parts took maybe a half hour. Board stuffing and soldering took perhaps another hour and a half in total, over several evenings. Testing used another couple of hours, what with figuring things out (see FINAL THOUGHTS at the end).

Construction is straight forward. Instructions on the web site strongly recommend you read them all the way through before you begin heating up your soldering iron. The USB interface integrated circuit is already pre-installed on the board, eliminating short circuits from soldering all of those tiny close-spaced pins. Sockets are provided for the solid state relays and the PIC. All other board parts are mounted through-hole - some top and some bottom.

Once all of the parts have been stuffed and soldered, and before you install the PIC and the 8-pin relays, take a magnifying glass and carefully check to make sure everything is soldered and there are no bridges between solder pads. Then take your test meter and check resistance across the + and ground battery terminals and pins 1 and 14 of the PIC socket. The measurement should be open or very



high. If it's low, check for a solder bridge or a component in the wrong holes. If it's ok, then install the driver for the USB interface IC. The instructions say if you are using Windows 7 or 8 that the driver is (most likely) already installed. I took this to be true and then found out it wasn't so. I had to manually remove the stuff Windows 7 installed. The correct driver information can be found on the mini-CD in the USB_DRIVER folder. I clicked on *CDM2824_Setup* and it installed all by itself.

At this point, the instructions are sort of vague (or I found them so!). When you connect the keyer (no batteries and no IC and relays) to the USB port, you should

One of the things I've noticed in the last few years with electronics construction and repair projects is that I can't see the components as well as I used to!

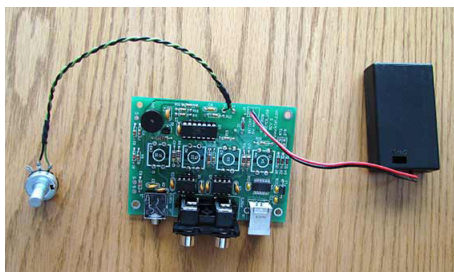
Color codes on resistors are difficult to decipher. Numbers on capacitors require considerable squinting.

The light level has to be brighter. I know that parts have shrunk in the ongoing march to miniaturization, but that excuse only goes so far. In a recent order to **LEE VALLEY**, I sprang for a binocular magnifier. It doesn't make my eyesight like it was when I was in my 20s but it does mean the difference between being able to work on circuit boards and see what I'm soldering, or tossing in the towel and not doing it anymore.



see in DEVICE MANAGER under Ports (COM & LPT) a listing showing *USB Serial Port (COMx)* - where "x" is the port automatically selected during the installation. Make a note of this as you will need to input it in K1EL's software or whatever program you end up using. Once this shows up in the Ports section of Device Manager you've done things correctly and can move on.

Disconnect the cable from the computer to the keyer and install the PIC and the relay ICs.



The WINUSB keyer circuit board with all the parts in place.

Reconnect the USB cable again. You should hear **R** in CW when the cable is connected and the keyer is powered from the computer. If this doesn't happen, check for 5 volts DC between one of the leads of the ferrite bead and the battery ground. Trouble shoot from there if necessary.

If you hear the **R** then things are good. Install WK-TEST from

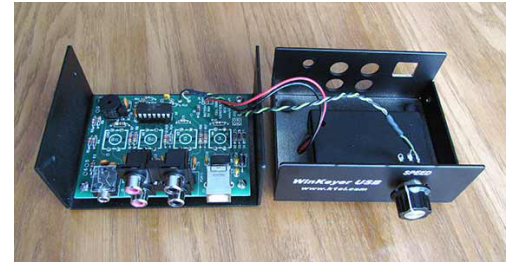
the WK_APPS folder on the CD.

Once the installation is complete, open the program and click on the Com heading and

set the com port to the number you noted in the previous section. Click on the OpenWK button and the Status should change from *Closed* to *Open*. If it does then the computer is happily talking to the keyer and you can make whatever changes you desire.

Disconnect from the computer. Install three AAA batteries in the holder. When the last battery is installed, you should again hear an **R** in code indicating the keyer is working. Plug in a key and take 'er for a spin.

Make sure you bend the solder tabs on the speed control over close to the body before you close the top



The board, battery holder and speed control fastened to the cabinet.



Paddle and keyer ready to play!

cover. Otherwise you may have an unwanted connection to the circuit board!

My **BENCHER** iambic paddle was wired in reverse to that shown on page 5 of the Assembly and Operation Guide. I could have made the change to the wiring on the key but it was just as easy to swap it with WK2MGR, another bit of software supplied on the CD.

This program also lets you write to any or all of the six memory locations, or you can do it the hard way by using the paddle for input.

The Quick Start manual talks about what is needed for a keying cable and shows an inexpensive one to use. Since I already had one for my transceiver, I was all set. You may have to purchase or make your own.

FINAL THOUGHTS

- The circuit board, components, and case are first class.
- The parts fit together reasonably well. The case could have been a little bit larger to make the final assembly a tad bit easier.
- The speed control could have been turned 180 degrees so the solder tabs are located towards the bottom of the case.
- The software installation was a bit of a hassle, but nothing that couldn't be overcome. It might have been a more serious problem for someone without computer/software skills.
- The manual, especially the part about the software, could stand some rewriting. As well, there were a few gaps in the construction portion that had me looking back and forth to see if I had missed something.
- The various information manuals and photos, available on the web site, could be gathered in one document to make it easier.
- It was a fun project, and the fact that it worked first off, more than compensated for the other awkward stuff.

TAKE OUT THE TRASH

Have you noticed, when you download software or updates these days, that a lot of it wants to install this or that toolbar to your internet browser? Or it wants to make this or that one your default browser. Or it wants to add a *really* helpful bit of additional software, one you'll just love to have - and it's free! A lot of time, they're not very obvious about it if you don't read each screen very carefully, un-checking boxes as you go. Then you end up with stuff you never wanted or weren't even aware you installed. I had one recently that changed my default search engine even though I had unchecked the boxes. The good ones let you tick the boxes if you want the stuff, the not-so-good ones, well...

I had occasion to boot the computer in the Branch Clerk's office the other evening in order to use Internet Explorer. Nearly half of the IE screen was taken up with

various of these add-on search bars. Not sure why all of this junk was on there, except it must have come from people downloading files of some kind. It took me nearly a half hour to clear it all off.

Don't get me started on the free-for-a-few-months software that comes on a new computer. Just try and get rid of Norton Anti-Virus!

I have Internet Explorer, Firefox and Google Chrome installed on my laptop so I can check out the Newsletter on all three to see if there are any glaring problems in viewing it. I have my software set to notify me of upgrades but not to automatically download and install.



CCLEANER is a free program I frequently use to clear the garbage off computers. Download it from <http://www.piriform.com/ccleaner>. It's a small program that installs easily. Un-check the box to install it in your computer's start menu. Leave the box checked to install an icon on your desktop screen.

Once you open it, the selections are on the left side of the screen. **Cleaner** searches your computer when you click *Analyze* and removes the junk when you click *Run Cleaner*. **Registry** locates and removes registry errors after first asking you if you want to keep a backup. **Tools** shows all the installed software on the PC and lets you remove or rename it, or simply delete the program name. It also lets you disable programs in your StartUp folder. You can use this last function to see what is slowing down the computer at boot-up.

CCLEANER has been around for some time and has the bugs worked out of it. A small and simple program that does its job well.

PLAYING WITH EZNEC - SQUIDPOLE

The radials I used for the SQUIDPOLE antenna project were inexpensive 33 foot tape measures I purchased from Princess Auto, up here in the soon-to-be frozen north. At that time, I bought a total of eight, thinking I'd be able to pick up more when I needed them. Well, that turned out to be wrong! P.A. has discontinued them and the manufacturer no longer shows them on their web site. Bummer!

Harbor Freight has one for \$4.99 each (**33 Ft. X 1" QuikFind Tape Measure - item #41255**). Sometimes (mid October as I write this) they discount the price to \$3.79. Still more than I'd like to pay but the best I've found thus far.

Princess Auto does show a twenty-five footer priced regularly at \$2.99 and (as I write this) is on sale at \$1.51 (more in line with the cheapskate in me). However,

when I called the nearest store, the nice lady told me it was also showing as discontinued, and the sale price was for remaining stock - of which they had none. My search continues...

That did get me thinking, and I wondered how mixing 33 and 25 foot tape measures as radials for the vertical would compare, using EZNEC antenna software. The first plot for SWR is when using sixteen 33 foot radials while the second is for eight 33 foot and eight 25 foot ones.

The plots shown differ from those presented in an earlier Newsletter because a series coil has been inserted in the vertical wire, and the wire has been set to the actual

published SQUIDPOLE wire length.

CORRECTION TO THE OCTOBER ISSUE

In the article *The SPUD GUN and DIPOLE ANTENNA LAUNCHER REDUX* in the October issue of the Newsletter, the link for KR4LO's web site was inadvertently left out. It is <http://kr4loairboss.com/>. The link has been added to the October Newsletter PDF file stored on the MARA NE web site. AR

QUOTE OF THE MONTH

"The future belongs to those who believe in the beauty of their dreams."

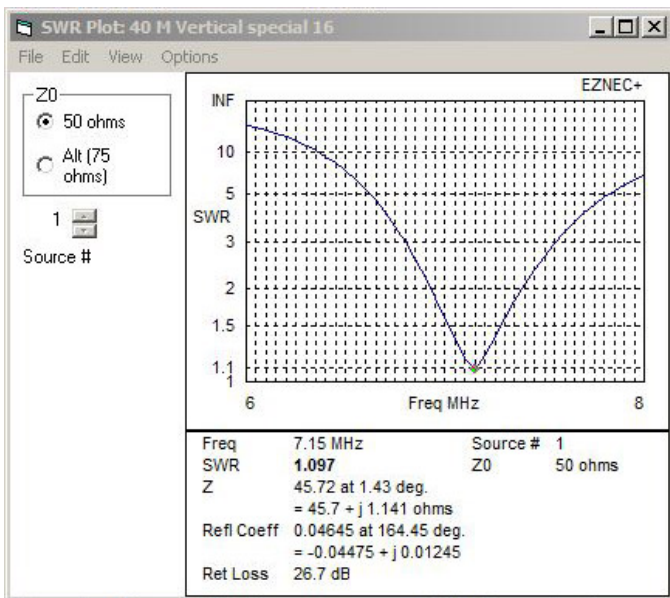
Eleanor Roosevelt

DI-DAH-DI-DAH ?

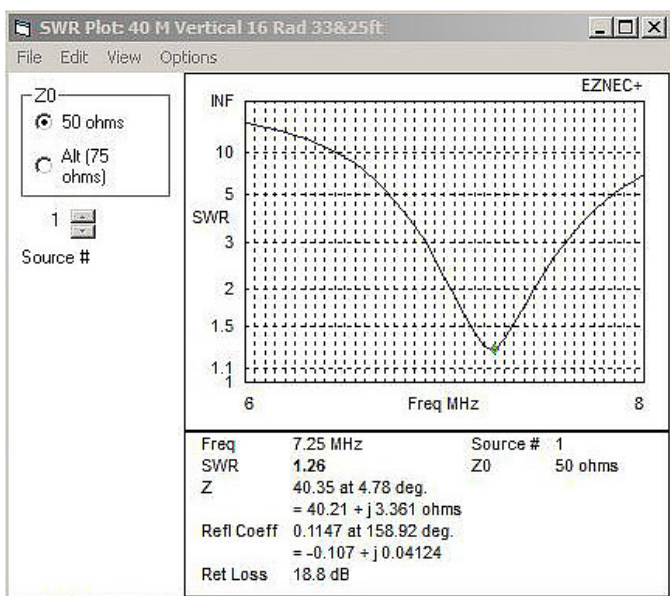
Once upon a time the company I worked for decided all of the employees should take a **Dale Carnegie course**. I don't remember much about the course, except for the impromptu talks they had us give on surprise subjects, scaring me half to death. I missed the maximum number of classes you were allowed. In the first meeting they had us turn to the person next to us and ask them about themselves. If I remember correctly (this was forty-five years ago!) they gave us time to talk with the people in the chairs around us. All of the ones I talked with, had something about themselves that was engaging. And that was the point of that part of the meeting - every one of us is unique and interesting.

If you've ever watched **BYU TV** on satellite or cable you may have seen **THE STORY TREK**. This program travels around and randomly chooses homes to knock on doors, asking the people who answer to tell them their personal story. Sometime they refuse, and sometime they hesitantly accept, usually saying their lives are not at all interesting and why would anyone want to hear about them.

There are lots of people who don't think they are important in the grand scheme of things. They kind of drift through life feeling they don't have much to offer. You



EZNEC SWR plot with sixteen 33-ft radials.



EZNEC SWR plot with sixteen radials - eight of 33 ft. and eight of 25 ft.

see them in meetings sitting off in the back corner, never saying anything, except when directly spoken to, and then responding almost apologetically.

If you think about it the memorable radio contacts are the ones where you engaged the other ham in a conversation about their interests (and not necessarily your own). The next time you communicate with them, they will remember you as an individual and not just another thirty second 5 and 9 contact. If you take the time to show real interest in another person, you may make a friend for life.

One that I remember was in the late 60s with a ham in New York state. I've forgotten his call after all these years, but his name was Art Roselle. We made a single CW contact. Afterward he wrote me a letter (this was long before e-mail). Over the next few years we tried to set up skeds, but never seemed to be able to make a connection. We corresponded sporadically for several years before his letters stopped coming. I can only surmise that he became a silent key. From that one contact, where we took the time to communicate about a few personal things, a friendship developed. Nowadays, with the internet and e-mail it would be a lot easier to begin and to maintain.

Whether it's a CW or a sideband contact, HF or over the local two meter repeater, or perhaps the person in the seat next to you on a plane, take the time to find out what interests them. Who knows - you might make a friend. And remember - you can never have too many of those!

If you take the time to show real interest in another person, you may make a friend for life

Until next month,

VE1VQ

