

# The Rochester VHF Group

# The VHF



# Journal

Volume 65, Issue 1

September 2012

The next regular meeting of the Rochester VHF Group will be Friday, Sept 14th 2012 at 7:30 PM at **Spencerport Wesleyan Church**  
**2653 Nichols St., Spencerport**

**Map and directions on last page**

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Classified

**Topic:** Summer wrap up and Bletchley Park

## The Chairman Speaks! John Stevens WB2BYP

**Groupers:** Welcome back all to the 2012-2013 Year for the RVHFG. I am looking forward to the activities of the year. I'll save some of that discussion for the upcoming meeting this Friday September 14<sup>th</sup> and Bill's report, but plans are to include some of the things that really worked well last year and stretch a little too.

Bands have been in interesting shape for the past few months, with some fascinating openings on 6M into South America and Europe. I was down visiting Mark K2AXX a couple of days ago and seeing some of the fascinating things he is working on, a multiple yagi implementation on his 6M system, that allows him selections of any antennae or combination to maximize intercept of signal arrival angles. He is also evaluating an Italian SDR as a band-scope, and as a general receiver. We are hoping to get him back this year for an update presentation.

The 144.205 net run by KA1ZE/3 in FN01 continues to be a phenomenon, with regular check-ins of 20 to 30 stations all around the east coast and extensions out as propagation allows. Some pretty long paths have been encountered, and attention has been generated all around North America for participation, ...Continued....

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# The Chairman Speaks!

Continued... and attention has been generated all around North America for participation, and dissemination of other nets and beacon lists. Ask Ken W2UAD about his activity on the Net, as he has been one of the stalwart participants (if not instigators...) since inception.

Stan KA1ZE is going to give a presentation on the remote controlled system he uses to operate the net at the Joint Mid-Atlantic and North East VHF Conference hosted by the Mt Airy VHF Radio Club and the North East Weak Signal Group (NEWS) in October.

[http://www.packratvhf.com/2012\\_Conference/vhf%20conf.html](http://www.packratvhf.com/2012_Conference/vhf%20conf.html)

The Rochester Hamfest has been a big topic of discussion, as the new location this year worked pretty well, with some of the usual start-up problems. I had a great time and never got out of the parking lot! A general good time had by all, by reports. Keep track of the RARA website to see what is going to happen next year, as they are having some scheduling difficulties with RIT for next year.

<Http://www.rochesterham.org/>

Our RVHFG Monday and Thursday at 2100 local 2M and 6M Nets on 144.260 have continued to have a good turn-out and make for a good way to check out gear with a pretty consistent crowd. Everyone is welcome; it is very informal, runs about ½ hour on each band. If there is interest in higher bands, we usually go to them after the 6M net is over. Several have 432 SSB capabilities, and occasionally N2DCH gets to work into the area on 222. Come by and check in, and let us know how you are hearing, what's new in the shack, any heads up on ham-fests or other club meetings.

This summer Bob W2CNS, Gloria K2GAB and I attended the 15<sup>th</sup> International EME Conference in Cambridge, England. This was an incredible event, with 195 “delegates” and another 50 or so spouses and guests, held on the campus of Churchill College. The Brits went all out to make the event the smoothest run and technically interesting, with presentations on various topics related to EME on all bands, modes and methods. It was an opportunity of a lifetime, to meet some of the fellow hams worldwide that are active and contributing to the state of the art. <http://eme2012.com/>

Some of the interesting topics covered were Power Solid State GaN Devices for Microwaves, MAP65 Version 2 diversity reception on digital modes, the ON0EME Belgian EME Beacon, Offset Antenna Feeds, Weak Signal Detection of Virgo A, Gaining dBs from Small Dishes, Noise Figure Error Analysis and some great historical retrospectives on how far the technology has come in the past 50 years or so. I'll have a copy of the Conference Papers at the meeting on Friday.

The trip included a coach ride to Bletchley Park, <http://eme2012.com/eme/bletchleypics.html> the site where much of the WW2 collection and analysis of German coded messages were unraveled through the use of the first computing devices designed to reduce the combinatorial tasks for the huge staff of analysts and support personnel. The German Enigma machines were quietly compromised here, and messages forwarded to the facility were decoded and used in much of the intelligence work done during the war. The site is now fully a museum, and the guides are experts in their own fields. They put on a terrific day long tour of the facility, with the appropriate break for tea at the appropriate times.



September VHF Contest was a lot of fun for me, as I was able to get 4 lower bands up and work a number of the locals, rovers and contest stations. How did you do? Frank K2OS did a bang-up job on 144 single band from his FN12 location. Mark K2QO Rover was out and worked at every opportunity, as was Tom KV2X.

Chris W2CCC in the rare grid of FN23 was on the lower 4 making contacts from Central NY. Len WA2ZNC reports Murphy paid a visit to his station over the weekend, losing some gear on 6 and 222 SSB, and freezing up a rotor. Ouch! Good luck Len, as we all have been there. I heard big signals from the K2LIM crowd, and I'm sure they will have a story to tell on their activities. Look for Ken and his team to give a presentation this year on their multiple yagi system in use on various bands at the contest site.



Big questions for the year are the schedule for the Beacons (soon to be installed at AWA in Bloomfield), long range plans for Microwave Update in 2014 here in Rochester, but most importantly, what did you do and what are you planning?

Come to the meetings, check out the website for more up to date information, and get on the air!

John WB2BYP

## **Secretary Report**

**Tom Jennings, KV2X**

### **Rochester VHF Group Meeting Minutes for May 2012**

Meeting was called to order at 1935 by WB2BYP and he welcomed everybody to the May 2012 Meeting of the RVHFG. We went around the room with introductions and what we did ham radio wise in the past month.

Bob, W2CNS, made a motion to accept the secretary's report as written in the Journal. Dave, k2dh, seconded the motion. Dave, AB2YI, made a motion to accept the treasure's report as written in the Journal. Irv, AF2K, seconded the motion.

**Attending:** W3OAB, W2CNS, K2DH, K2GAB, K2LDU, AB2YI, K2OS, AF2K, KV2X, K2TER, WB2BYP.

#### **Old business**

Beacons are ready. Dave and John are planning to go to the AWA site on multiple Tuesdays to install the beacons, and antennas. It should be easy to install.

#### **New business**

Sign up sheet for the Hamfest. John will have the sheets.

#### **Elections:**

Candidate slate:

Chairman John Stevens  
Vice Chair Bill Rogers  
Secretary/Treasures Tom Jennings  
Even year director: Bon Nezelek  
Past chair Dave Hallidy  
Odd year director: John Gilly open position  
Technical advisor Freddie Suliman volunteered.

K2DH moved that we approve the slate by acclamation. K2OS seconded motion. Above slate elected/appointed.

Suggestion for meeting is to have a parking lot EME. Need to check moon times coincide with meeting. Also check EME contest schedule and have meeting during the contest.

We discussed making SDR as a project.

As benefit for members, we discussed about making newsletter available to members only for about a month the archive it for general access.

Meeting adjourned at 2100 hours.

## Rochester VHF Group Treasurer's Report

### CHECKING ACCOUNT

**Previous Balance** (as of 05/09/2012):

**\$2006.09**

Income:

\$ 0.00

**Current Balance**

\$2006.09

Note: This balance does not include memberships collected over the summer. These will be included in next report.

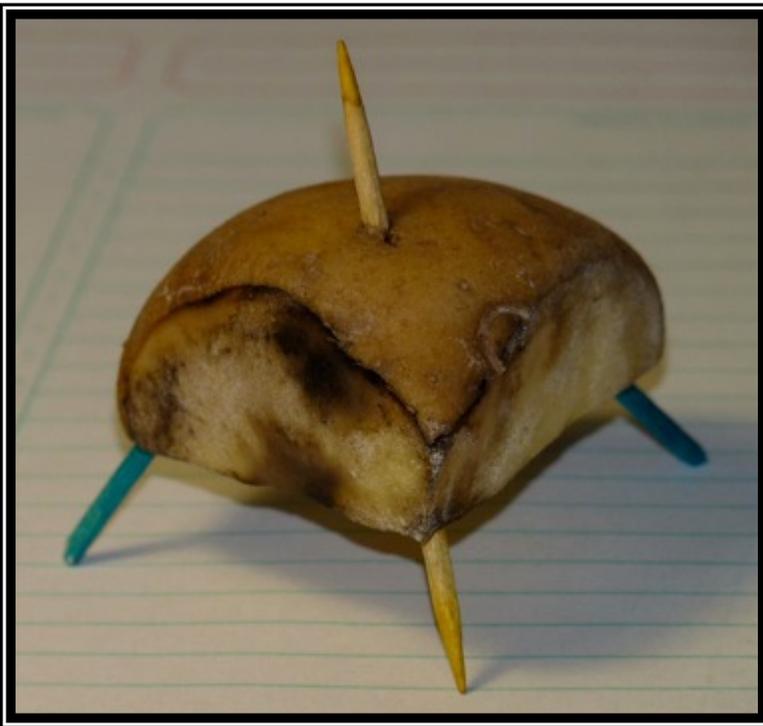
*Respectfully submitted,  
Tom Jennings, KV2X, Treasurer*

## September ARRL VHF Contest.

There wasn't much time between the contest and getting the Journal published this month to report on everybody's contest results. Please send me your experiences, results and pictures of this years September and June VHF contests.

## An Organic Aid to Surface Mount Construction

by David Muller, AB2YI



**What the heck is that?** You probably know from previous articles I like to use low tech when it works for me.

Maybe you have already figured out some solution for this problem, but in taking on my first surface mount project, a 2M DEMI pre-amp kit, I needed a way to keep those tiny components in place while soldering. The first innovation that came to mind was a potato tripod. Cut a medium weight potato to any shape you want, roughly triangular, install two rear toothpicks for legs, and one in the front that will apply pressure to the component. If component alignment is not quite perfect you can nudge it into place, and when the solder melts, the slight pressure seats it pretty well.

I don't think you'll find a cheaper way to get the job done, and if you're really frugal, you can still eat the potato. That's probably a better idea than saving it for the next project.

Or, not.



By the way, surface mount turned out to be no real problem. I was able to fit a relay and a bias tee in the same box with a little modification of the board so that it could be mast mounted. From first try it's got enough gain I will probably attenuate it a bit, and we'll see how that helps in the contest next week.

Update: By the way, it helped pretty well on weak signals, but got kinda chirpy when hit by the blasts of a nearby rover. After all, that's roving.

David Muller, AB2YI

## **Ways I Terminate 75 Ohm Hard Line**

**By Gedas, W8BYA**

I hope this may be of use to other hams. It shows a couple easy ways I have come up with for terminating 75 ohm hard line that may not be known to all. I doubt I'm the first to do this but I have not seen or read these techniques used before and wanted to pass them on. They have served me very well. Ever since I got a 1000 pound spool of 7/8" hard line I have been coming up with more and more ways to use the stuff. I currently use a pair of 270' runs of this stuff for my 2m and 432 MHz antennas with good results.

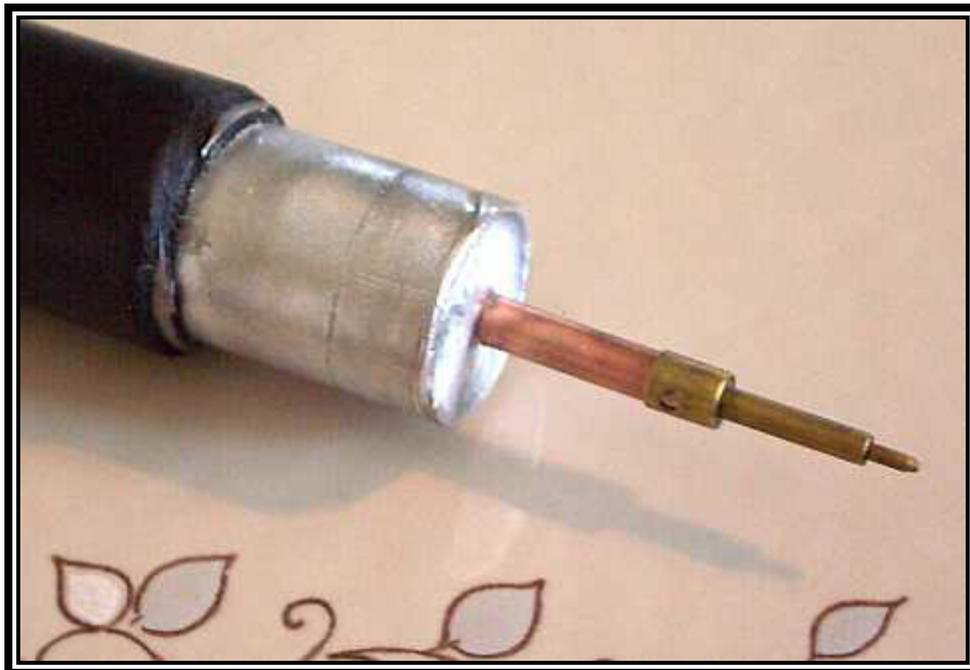
Method #1. Prepare the end of the HL so it looks like the image below.



Cut it flush and hollow out the foam dielectric maybe 3/4" deep. I used a small torch to carefully melt the stuff out. I use a small pipe cutter to cut through the outer protective black plastic and steel armor. After doing that I drill a small hole, maybe 1/8" deep, right into the HL center conductor (length wise) the exact size (diameter) of a #12 solid copper wire. Press fit the wire into the hole with a pair of needle nose pliers. Then, lay a small bead of solder from the base of the copper wire to the HL center conductor. The HL center conductor is aluminum that is copper coated and real easy to solder to. You can lay a tiny wire between the two if you can't get a solder bridge to stay put. The copper wire needs to be straight & long enough to go into the center pin of the Nconnector as seen in the image. I don't know the name of the copper plumbing adapter I used but it is very common and only cost me a buck. It turns out the sharp threads of the copper adapter will self-thread right into the soft ID of the aluminum with no effort at all. The N-connector fits perfectly into the ID of the copper adapter Heat it up with a torch and add a touch of solder for a perfect seal. Here is what the connector looks like when the 2nd half of the Nconnector is attached. Don't forget to goop some Anti-Ox compound between the copper and aluminum to help keep the corrosion between dissimilar metals to a minimum. Then all you do is weather seal and off you go.



Here is another way. It turns out that the center pin from a regular 1/2" 50- ohm Helix connector fits perfectly over the center conductor of the 75- ohm hard line. It's an absolute perfect fit. The reason is because the difference in impedance's between the two. If this were 1/2" 75-ohm HL this idea would not work. Anyway, solder the center pin onto the center conductor of the HL and assemble the shell of the connector as per normal install. Here is what it looks like:



And here it is after the connector is assembled:



I then slip a 2" long copper coupler (I think it was a 3/4" coupler) over the seam where the two meet and solder them shut at the connector end. You can't solder the copper coupler to the aluminum but it does solder nicely to the brass helix connector.



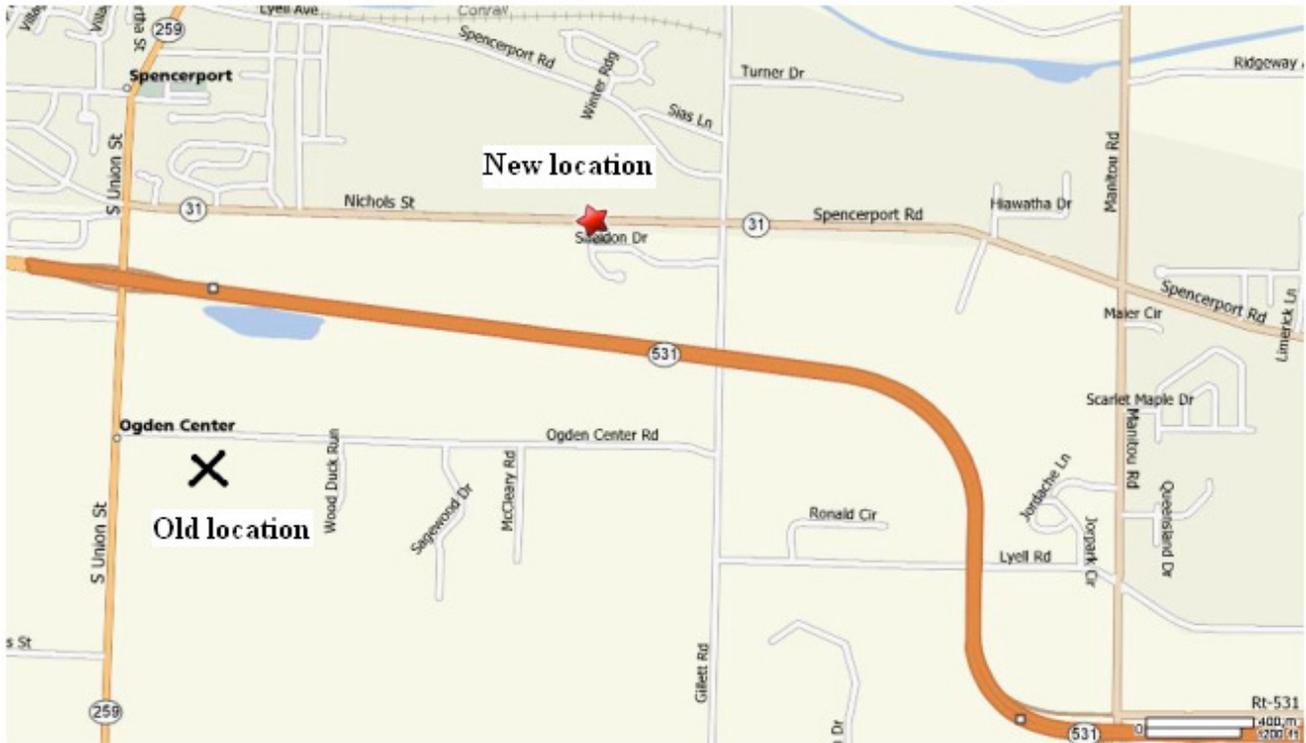
I put a small slit into the side that slips over the aluminum side and tighten it down with a small SS hose clamp. After that I seal it all up with RTV and I'm good to go. If there is anyone interested I can share some images and words of some homebrew 75-ohm to 50-ohm transformers I made for this HL. That's all for now, I hope this will help someone.

73 Gedas, W8BYA EN70jt  
Gallery at <http://gedas.cc>

# Classified Listings

None this month

## Meeting Location and Directions



**Spencerport Wesleyan Church on 2653 Nichols St. (actually Hwy. 31).**

**Directions from Rochester:**

**531W exit RT. to 259N**

**259N turn Rt. on 31E (first Rt. at traffic light)**

**Look for Spencerport Schools Bus Garage on left**

**Take first Rt. on Sheldon at A-framed church, park in rear lot.**

**Enter gray metal door under fire escape.**