

The VHF



Journal

Volume 64, Issue 1

September 2011

The next regular meeting of the Rochester VHF Group will be Friday, Sept 9th 2011 at 7:30 PM

Spencerport Wesleyan Church
2653 Nichols St., Spencerport

Map and directions in back

In this issue:

The Chairman Speaks!
Secretary Report
Treasurer's Report
Rover Notes

Classified

Topics: Recap the activities of the summer with several short presentations.

The Chairman Speaks! John Stevens WB2BYP

Groupers: Welcome all to the 2011-2012 season for the Rochester VHF Group. As RVHFG Chairman I am looking forward to another exciting year, and officially welcoming one and all of you to come forward and give me your ideas, constructive criticism and energy. Send me email at ***wb2byp at arrl.net*** or you can phone me up at 585-415-4973, or better yet find me on the air for a chat.

I am privileged to be working once again with Bill Rogers, as the Vice Chair, and Tom Jennings as the Secretary-Treasurer, as well as John Gilly, Dave Hallidy and Bob Nezelek with the hope that the season brings even more interesting topics and meetings.

Many clubs such as ours have been experiencing a loss in membership and a diminishing lack of participation. I urge you all to come out for the meetings, and get on the air, and share your results and experiences with the group. The RVHFG has an emphasis on VHF/UHF/SHF but is always open to the interesting and curious topic, be it MF/HF through Light. Come show us what you have been up-to, and send something into the website or the journal to pass around. ...**Continued**....

Published by
Rochester VHF Group
PO BOX 92122
Rochester, NY 14692
Editor: Tom Jennings, KV2X

The VHF Journal is published by the Rochester VHF Group monthly except June-August. The subscription price is included in the membership dues. If you elect to receive the PDF version by downloading it from our website, dues are US\$10 per year. In this case, you will be notified by email the day it is available for download. If you choose to receive the hardcopy Journal by Postal delivery, the dues are US\$15.00 per year. Articles and comments should be submitted to journal@rvhfg.com

The Chairman Speaks! continued...

... I know Bill will have more to say on the meeting topics, but to amplify, In September we are going to recap the activities of the summer with several short presentations. I encourage one and all to bring in a sample of what you have been doing, or anything from a few images to a full-fledge Powerpoint to the meeting on Friday September 9th. I'll be bringing in a series of images from the installation of the azimuth encoder on the dish here at Area 26. Bob Nezelek is going to have a series of images detailing his big project, a 144 and 432 MHz EME array update. In October Ev Tupis, W2EV, will present a talk on "PropNET: A 6 Meter Multifunction Service (alternatively "If the band is open and nobody TX's, does anybody hear it?"). In November, we will have our meeting at the AWA, with a tour of the Museum (thanks go to W2CNS for organizing). In December we will have our yearly Tune-Up Clinic, with test equipment and experts ready to check-out preamps and transverters for the upcoming January Contest.

Watch the newsletter, save the RVHFG website in your favorites and check in to the Monday and Thursday night Rochester VHF Group SSB nets at 2100L on 144.260 USB for the latest info and updates.

Hope to work you on the bands.

John, wb2byp

Secretary Report

Tom Jennings, KV2X

Rochester VHF Group Meeting Minutes for May 2011

Meeting called to order at 1950 by K2DH. This is the official annual meeting. Dave explained what needed to be done for the business portion of the meeting: Elections and bank account. We went around the room with introductions and what we did in the past month ham radio wise.

John, WB2BYP, made a motion to accept last month's meeting. Bill, K2TER, seconded it. Dave, AB2YI, made motion to accept treasure's report and Irv, AF2K, seconded it.

Attending: K2DH, K2TER, WB2BYP, WA2IKC, K2DB, W2CNS, W2UAD, AB2YI, WB2QCJ, AF2K, W3OAB, KV2X, and Gloria Butterworth

Old business:

Beacon report. Dave, K2DH, was having trouble getting the beacons down to the N2PA site but found a place FN13ad. Dave and John, W3OAB, plan to put them on the air as soon as they can.

W2CNS reported the results of his inquiry to the AWA regarding having a meeting at AWA facility. He was told to name a date.

New business:

Dave told the group that RVHF will have presence at the Hamfest with Bills rover, and the beacons will be on the air. John, WB2BYP, plans to post the RVHFG Banner on his RV and is willing to have table where display club information and accept memberships.

Elections:

The following were elected:

- Charman: John Stevens, WB2BYP
- Vice Chairman: Bill Rogers, K2TER
- Secretary/Treasurer: Tom Jennings, KV2X
- Odd Year Director: John Gilly, W3OAB

Dave, K2DH, moved to adjourn the meeting and Irv, AF2K seconded it.

Meeting adjourned at 2200

Program:

We had a discussion about the future of the club and what we need to do the keep the club active.

Current location is good but we should look into other locations for meeting even if one time for instance AWA and people’s homes. Other suggestions discussed were:

- Use Skype video service to make our meetings available via the internet.;
- Send people to other groups and make announcements at meetings and their news letter;
- Use Facebook as a way to connect with other members.
- Use a contest to rally around. Can we use a multi-op station to increase activity.
- What should the club concentrate on? Technical or contests?
- Come up with a questionnaire at the Hamfest as a way to build interest.

**Rochester VHF Group
Treasurer’s Report –**

CHECKING ACCOUNT

<u>Previous Balance</u> (as of 05/08/2011):	\$1,950.09
Income:	
Dues	110.00
Donations	184.00
	\$294.00
Expenses:	
Sign	70.00
Membership Cards	12.00
Web Hosting	230.00
	\$312.00
<u>Current Balance</u>	\$1,932.09

*Respectfully submitted,
Tom Jennings, KV2X, Treasurer*

Rover Notes—3 Elements on Six, and Mast Improvements

David Muller, AB2YI

Having used Moxons on 6 meters for roving, I found the Mini Horse 3 element, 6 meter antenna (March 2010 QST) would fit in similar dimensions. For 6 meter measurements (not in QST) read on, or for metric dimensions, scroll down under the antenna link

at: <http://hem.passagen.se/sm0dtk/>



Three element 6 Meter Mini Horse at Mutton Hill, CQ WW VHF.

The Assembly

Crossed wood strips, 1/4' x 1/2" x 96" ripped from straight grain 2x lumber, were set into 5" x 6" x 3/4" plywood blocks. A tangent of 3 in 5 closely matches the angle for the antenna diagonals.

The grooves are cut by hand, the most exacting step in the construction, and small flat head screws bind the strips in place.



A hole for the mast was drilled through the blocks, and a 4" angle iron, mounted on the pivot bolt, attaches to the mast with a hose clamp.



Two 1/4-20 T-nuts set in the upper block allow thumb screws (carriage bolts in photo) to lock the blocks into alignment. Loosening them with the mast out allows the strips to rotate parallel, folding flat and compact.



The long dimension of the antenna rectangle is 80.75", the short is 47.25". Wire tails folded inside and taped to the wood strip add 13" to the director, and 20" to the reflector, so the two wire elements are 120.75" and 106.75" long. SM0DTK recommends insulated 1mm wire, and I used stranded #16 scrounged from an old vacuum cleaner cord. I used 50 pound test monofilament to string the perimeter, taping wire to the line.



The corners pass through a short piece of vinyl tubing that fits snugly over the strip ends, and the line is knotted at each tube. The whole array can easily flex to mount the corners, and it then has about 5-6 inches of bow, elevating the plane of the wire above the blocks. Gray spray on primer renders a stealthy, non-gloss finish.

The driven element uses either a PVC tee or elbow fitting as center insulator, which fits over the end of the mast to provide suitable elevation. I soldered the wire to a short N pigtail which passes through an old Kodak 35mm film cartridge to provide some weather protection at the fitting. Either side of center, the elements extend 40.25" inches to a wire tee running 10.6" towards the director corner, and 5.3" towards the reflector corner, also taped to the perimeter line. It turns out the driven element is a little saggy, but judging from a nearly 1:1 SWR across more band than I expect to work, it doesn't seem to matter.

I have thought of using a more rigid driven element, of solid wire or rod for each side of the tee, but after all, it ain't broke. I think there is some advantage using the wire alone as the perimeter by lashing shorter sections of monofilament to fill the gaps, but adjusting lengths would be tricky. A whip finish or nail knot from fly tying would come in handy to bind the wire and sliding knots could adjust the length before locking with glue.

While this antenna may look flimsy, in practice it roves pretty well. I've driven 55 mph with no problems, and it doesn't try to spin my hand-turned mast like some as it has very little wind loading. A couple minor tree branch encounters did no damage, the worst just disconnected a tubing end.

Mast upgrade

Now, having to pull down the whole mast to reattach that corner would have been a problem—except for a modification I made to my rover mast system. I got tired of climbing a ladder and sometimes standing on the plywood antenna mount atop the car in wind, rain and darkness.



So, I put a 1" deep notch in the top of the main mast where I can reach up and hang a shorter sub-mast on a 5/16" bolt. The sub-mast carries a 28" top tube with 1 or 2 antennas mounted, and a lower 48" tube slides up into place with 3 more antenna mounts.

Once the tubes are fastened the whole array swings in at the bottom and is secured by, you guessed it, a hose clamp. With just 2 antennas on 6 and 2 for the CQ WW VHF contest, it took about 15 minutes to pull them down, untangle and reset the corner, and be back up ready to go.





Detail shows the features discussed, with antenna raised to about 17 feet. With the main mast in place, its notched top stands at about 10 feet. An 8' piece of 1" steel conduit serves as a handle when I lift the assembly to engage the pivot bolt, and it also keeps the lower part of the sub-mast in place while its end rests on the ground. When the handle is removed, the lower tube slides up, and a hose clamp at its base is tightened, aligning the antennas. Then, a larger hose clamp secures the bottom of the entire assembly.

Red Velcro extension cord strips (Home Depot) that tie the coax to the mast have proven very handy. The black tape lining the notch was an attempt to keep water from running inside--epoxy or a wood plug would probably work better. Where the sub-mast is drilled and bolted, a hardwood dowel inside provides strength.

Back at the shack

I've also used a detachable mast at home. A spaced U-bolt slips over the tapered top of a mounted 8 foot 2x2. A 4 foot length of 1" PVC conduit surrounds a steel conduit mast, and is secured to the 2x2 near its bottom by a hose clamp. It's a simple matter to remove the hose clamp and lift off the mast assembly.



The 10' 3/4" steel conduit can be elevated 6 feet and is supported by a bottom bracket that pivots into place. The actual antenna mast is 1/2" steel conduit set inside the 3/4" steel with a 3/4" PVC tube on top for antenna mounts. Ordinarily, a small set screw in the 1/2" conduit rests in a notch atop the 3/4" steel, so the two rotate together. But extensions can be added to the 1/2" conduit at the bottom, raising the antennas another 6 feet, and near a metal roof, that makes a difference. The same bottom bracket supports the 1/2", and the 3/4" is kept clear above it by tightening a hose clamp. A small vise grip locks on to the 1/2" conduit providing a directional indicator and about 180 degrees of rotation before resetting



When down, the antenna tops out at about 14' but it can extend up to 26', and it cost about \$.50 per foot for materials. This sort of arrangement works fine for light antennas like Moxons, Cheap Yagis, and the Mini Horse. When bad weather threatens, its easy to lower or remove altogether. I hope these ideas may be useful for a few hams, either roving or at the shack.

November Meeting

The RVHFG plans to have its November meeting at the Antique Wireless Association Museum located in Bloomfield, NY. A brief business meeting will be followed by a tour of the facilities by AWA personnel with a demonstration of the spark gap equipment. The AWA Museum is one of the few devoted to research, preservation and documentation of the history of wireless communications. There is a complete range of historical communications equipment on exhibit. Some of which, can be associated with famous people like Guglielmo Marconi, Lee De Forest, Edwin Armstrong, Thomas Edison and other famous pioneers. Members of the Antique Wireless Association™, a world-wide group, have collected these exhibits from around the world - much of which are still in working order.

“The Thrill Before the Chill”

by Len Crellin, KC2PCD

So you joined us at the Hamfest this year and got everything all set up and started to sell a lot of your excess equipment, when it started to rain and cut your selling time short. Or maybe you couldn't make it this year, but you know you have been promising yourself to move some things to a new home!

Well, I think this may be right up your alley. RARA has joined with the Damascus Shriners to produce our first annual Fall Fest and tailgate party. They will be providing a first class location with ample parking, indoor bathroom facilities, separate area for larger vehicles and RVs, a large covered picnic area to eat in and a large deck to rest after all that shopping.

They have built an excellent reputation for serving fresh food at reasonable prices. Plan to enjoy a fish fry, Italian sausage, hamburgers, hot dogs, salt potatoes and fries. Then walk it off and buy some more gear! HiHi.

This event will be on Saturday, September 10, 2011 and will open at 8 AM and go to 4 PM. It is conveniently located off Rt.104 at 979 Bay Rd., Webster, N.Y. 14580

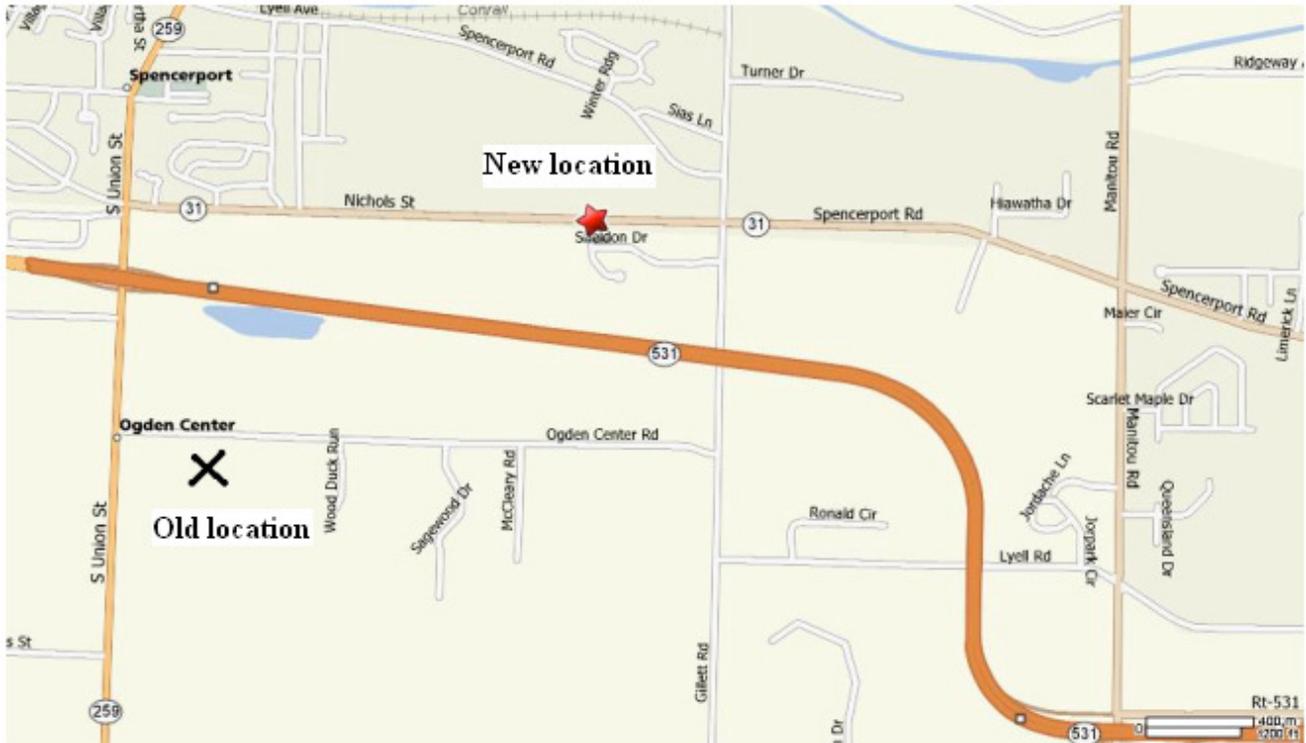
Upon entering, the staff will ask for a \$5 donation that will all go to help fund the Shriners Hospital for Children.

So, spread the word and don't miss your last local flea market for buying and selling ham radio supplies in 2011. Hope to see you all there! 73.

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.