

# The VHF



# Journal

Volume 66, Issue 2

October 2013

The next regular meeting of the Rochester VHF Group will be Friday, October 11th, 2013 at 7:30 PM at **Spencerport Wesleyan Church**

2653 Nichols St., Spencerport  
**Map and directions on last page**

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K2LIM September VHF Contest  
NYQP  
Classified

**Topic:** VHF/UHF Contesting

**RVHFG's Beacons**

| Band  | MHz      |
|-------|----------|
| 6m    | 50.078   |
| 2m    | 144.298  |
| 1.25m | 222.050  |
| 70cm  | 432.300  |
| 23cm  | 1296.257 |

## The Chairman Speaks! Bob Nezelek W2CNS

**Groupers:** I hope everyone enjoyed our September meeting and excellent presentation on Software Defined Radios (SDR) by W2XH. The information really shows how the state of the art is changing at a very fast rate and how amateurs can benefit from this technology.

This month is going to be interesting for several of the officers and directors of the group. This week NEAR-Fest will be held in Deerfield, NH. Several members will be there. Shortly after that, a group of RVHFGers will attend MUD in Morehead, KY. As part of the November meeting at the AWA we will provide information on the activities.

We are always looking for our members to put a presentation together and present it to the group. This month's presentation on VHF/UHF contesting by Ken Kent, KA2LIM/K2LIM, should be a "must attend" event if you are active in contesting or want to get into contesting. Ken presented material at the 2011 MUD conference.

Continued....

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# The Chairman Speaks!

Continued... How many of you were active in the September VHF contest and the "evening sprints"? There was some good activity at times. Several persons reported enhanced propagation during the events. Also, several distant stations were happy that FN13 was represented. Let's keep up the interest. The "144.205 group" is also active. Talk it up when you are on the air. There are a lot people listening but not transmitting. Call CQ and you might be surprised who you might work. I am just as guilty by not calling CQ a lot. Remember that the spectrum assigned to amateur radio is always being looked at by other services. "Use it or lose it"

Finally, be prepared to tell us what project you are working on. I always enjoy listening to that part of our meetings. Also, try to bring a guest to the meeting.

W2CNS Bob Nezelek

## Secretary Report

Freddie Sulyma, WB2GFZ

### Rochester VHF Group Meeting Minutes for 13 September 2013

I would like to start off by saying I am honored to be given the privilege of giving back to our Amateur Radio community by serving as the Secretary and Treasurer for the RVHFG. Thank you all! I will try to live up to the standards that my predecessor Tom (KV2X) has set.

The meeting was called to order at 1940L by Bob (W2CNS). Bob welcomed everybody and asked if there was a motion to accept the minutes from the last meeting as printed in the Journal. John (WB2BYP) made the motion to accept and Frank (K2OS) seconded. W2CNS asked if there was a motion to accept the Treasurer's Report from the last meeting as printed in the Journal. K2OS made the motion to accept and Dave (K2DH) seconded.

#### Attending:

KV2X, WB2GFZ, W2CNS, W3OAB, K2DH, WB2BYP, K2GAB, W2XH, KC2VJU, KA2CGB, W2UAD, K2OS, AB2YI, Brian Padalino.

#### Old Business:

The Microwave Update (MUD) committee (K2DH and K2OS) indicated that they have been planning for next year's MUD event which is tentatively scheduled to take place here in Rochester NY the weekend of October 18 2014. The committee indicated that they will follow up with Visit Rochester (Wendy Ford) to determine availability of venues.

The RVHFG/RDXA 6m Skimmer project status was highlighted by WB2BYP. The system has been operational without faults for 2 months at his QTH and arrangement to transfer it to Jeff Ach's QTH (W2FU) will be facilitated shortly. John indicated that the system functioned well with CQ calls but had difficulties identifying Beacons due to the inconsistent protocol structure transmitted by the general Beacon population. Experiments with filters will be explored to mitigate identity of Beacons heard. Additionally, efforts to configure the system to auto boot after power interruption are being pursued.

#### New Business:

It was suggested that a link be added to the VHF Journal that would allow access to the 6M skimmer reports.

An announcement and discussion regarding the VHF contest for the weekend of 14/15 September was brought up.

After New BusinessK2DH made a motion to adjourn the meeting and KV2X seconded the motion.

Program:

Ryan (W2XH) introduced a project based on the Nuand bladeRF, a USB 3.0 Super speed Software Defined radio. It has a Cyclone FX3 ARM based embedded microcontroller, Alter Cyclone 4 FPGA and a USB 3.0 interface to a computer. On the RF side it features a LimeMicro LMS600D RF transceiver with a bandwidth of 28 MHz and a tuning range of 300 to 3800 MHz.

### VHF Group Treasurer's Report

#### CHECKING ACCOUNT

|   |           |
|---|-----------|
| Previous Balance (as of 9/13/2013)  | \$2058.09 |
| Income:   | \$80.00   |
| Membership/Renewals – K2OS, W2UAD, W3OAB, KV2X, WB2GFZ, W2CNS,<br>KA2CGB and W2XH |           |
| Expenses:   | \$0.00    |
| Current Balance:  | \$2138.09 |

*Respectfully submitted,  
Freddie Sulyma, WB2GFZ, Treasurer*

## The Vice Chairman's Report

By Tom Jennings KV2X

Groupers I ran across something while surfing the web that many hams are interested in and may want to expand their knowledge especially since software defined radios are becoming an integral part of ham radio. You can download a PDF copy of the book "Digital Signal Processing" By Steven W. Smith, Ph.D. for free! Here is a list of chapters:

|                                   |                                 |                               |
|-----------------------------------|---------------------------------|-------------------------------|
| The Breadth and Depth of DSP      | Continuous Signal Processing    | Linear Image Processing       |
| Statistics, Probability and Noise | introduction to Digital Filters | Special Imaging Techniques    |
| ADC and DAC                       | Moving Average Filters          | Neural Networks (and more!)   |
| DSP Software                      | Windowed-Sinc Filters           | Data Compression              |
| Linear Systems                    | Custom Filters                  | Digital Signal Processors     |
| Convolution                       | FFT Convolution                 | Getting Started with DSPs     |
| Properties of Convolution         | Recursive Filters               | Complex Numbers               |
| The Discrete Fourier Transform    | Chebyshev Filters               | The Complex Fourier Transform |
| Applications of the DFT           | Filter Comparison               | The Laplace Transform         |

Fourier Transform Properties

Audio Processing

The z-Transform

Fourier Transform Pairs

Image Formation & Display

Explaining Benford's Law

The Fast Fourier Transform

See anything interesting? Reviewers say the material is understandable so that you don't need to be a mathematician as basic algebra is used in explaining all the important techniques, refreshing writing style, and you don't have to struggle through derivations and statistical analysis.

You can find the book at <http://www.dspguide.com>. If you want to download the entire book, be prepared to do it one chapter at a time. Enjoy!

Speaking of digital signal processing, Ryan (W2XH) is making a copy of his presentation available. He has posted a bandwidth-friendly PDF of his presentation at:

[http://drop.hoopycat.com/bladerf\\_overview\\_web.pdf](http://drop.hoopycat.com/bladerf_overview_web.pdf)

Thanks Ryan!

I hope to see you all at the next meeting on Friday, October 11, 2013.

73,

Tom kv2x

## **September VHF 2013**

**By Ken – KA2LIM and Al – W9KXI**

Things started shaping up in August for the September contest with many different operators committing to coming and Lu –N2SLN planning on a 6 grid rove with a friend. I arrived at the gate entrance to the K2LIM station before noon with my nephew Matt, not a ham yet, with Rob – KB2YCC right behind us. Soon after, Al - W9KXI arrived followed by Paul – KE1LI and Tom #2 – KB1ORX and Tom #1 – KV2X and Larry – WA3CSP. Wow! Eight operators ready to go on site.

I got the generator running and everything turned on while everyone was unloading and setting up food in the kitchen area of the "Hornby room". Once that was done we all partook of some "pulled pork" sandwiches and fresh done "salt potatoes" that came from my garden earlier in the week, plus some home brews, 5 different flavors of beer with 3 home-brewed flavors "on tap", plus water and some soda. Food for the weekend consisted of: pulled pork, salt potatoes, pickled eggs, (Tom #1's famous) salsa with 3 different chips, veggie trays w/ dip, fruit tray w/ dip, cheese, (3) home-made apple pies and a bowl of candy. For breakfast on Sunday there were pancakes w/ scrambled eggs and sausage links and ham and cheese and eggs on biscuits and sausage and eggs and cheese on biscuits, orange juice and coffee. For a late lunch we had hot sausage with peppers and onion sandwiches. We do eat very well.

The seats were all filled at start time and we were off and running. Well, crawling at first as it was a couple of minutes before the first entry went into the log. My nephew Matt who is age 15 was on hand for his first experience in contesting and observed for the first 3-4 hours. When he said he was ready to try his hand, we put him in the 6M seat as things were pretty slow there. This was also a new experience for Tom#2 KB1ORX at a multi station.

Early in the afternoon of Sunday, I was at the 432 position in the middle of a contact with John - N2DCH/R when the transverter locked up in TX and I had no receive. After checking things over and then swapping out the IF rig, the same thing was still happening, TX lock-up and no RX. So I removed the transverter and ran direct from the FT-847. We were back on the air with 432 but our receive sensitivity was down from what it should be but we were back up and running. This was the only "hic-up" for the entire contest. The computers worked flawlessly, the logging program – VHF Contest Log by N3FJP, the newest version by the way, 4th time using it since the June contests and it worked very smoothly. Editing and corrections can be done on the fly with the corrections taking affect immediately. What a great improvement to this program.

Larry – WA3CSP left about 7 PM Saturday evening as he had a funeral memorial to attend on Sunday morning. He survived all the high-power RF with his newly installed pace-maker and is still with us to contest again. Activity on the bands petered out about 1130 PM local time on Saturday night, so we shut down and went to bed.

I was up at 0530 on Sunday, got the generator running and the station back on and ready to go. Made a few contacts on 6 and 2 before the others started rolling out of bed, Paul and Tom #1 started fixing breakfast about 0830 and we ate in shifts so the seats were always full. Walt – N2IK arrived mid-morning and Alex –N3NP arrived on site late morning.

Band conditions were non-existent all weekend so it was a real plug-fest to put contacts into the log. Alex headed for home about 4PM, Paul and Tom #2 headed back to CT about 5:30 PM followed by Walt heading for Syracuse before dark.

At 2338 UTC, I worked W4NH in EM85 (GA) on 222 and then on 2M. Heard W4IP call and work W4NH, I Called W4IP but could never get his attention. Shortly thereafter, Al was operating the 2M station and worked W4ZRZ in EM63 (AL) on the upper Omni stack. Switched to the 4 stack beams and could not hear him, went back to the Omni's and completed the contact, then worked him on 222 on the Omni's and 6M, a distance of 780 miles. Then we worked AA4ZZ in EM96 (NC) on 6,2,222 and 432 a distance of 530 miles. Some other long contacts were:KX4R in EM73(GA) – 723 miles on 2M, KG9D in EM56(TN) on 6M, K9MRI in EN70(IN) on 432, WA9KRT in EN61(IN) on 2M. A great brief opening to the Southwest and then Rob-KB2YCC took Matt outside and showed him the high-altitude ice clouds that gave us the brief opening in that direction up through 432 MHz.

Earlier in the evening, just before dusk, we saw a hot air balloon floating in our direction and the closer it got the lower it was going. The cold air was pushing it down. We could see the pilot flaming frantically to keep altitude but he was coming down, and he did in the brushy field next to us. Soon he got enough heat back into the balloon and up he went and floated right across in front of our location but going down again headed for another "open" field just north of us. Everyone got some great photos of this event.

In summary:

- Largest number of operators on hand for a contest

- Meeting and making new friends

- No rain, no visits from the neighbors (cows)

- Good food, good conversation

- Great fellowship

The opportunity to introduce a young man to the wonderful world of VHF/UHF amateur radio who is now studying to get his license and turned into a pretty good operator by the end of the contest getting experience in the 6M, 2M and 222 seat.



Beautiful sunsets which produced some fantastic photographs, beautiful sunrise  
Visit by a hot air balloon  
Working into "4-land" on 432 phone  
No activity on 2.3 & 3.4 GHz at this location  
Only one break down (432 transverter)  
Some 2M and 223 FM activity.  
Three home brewed beers: stout, fresh hop ale and triple-hop ale

Total contacts – 755

Score – 202,950

6M – 245Q/48G

2M – 263Q/52G

222 – 105Q/41G

432 – 108Q/35G

One of most fun and successful contests we have had.

Ken – KA2LIM and Al – W9KXI

## 2013 New York QSO Party

### CQ NYQP!

Mark your calendars!! **October 19th** is the day for the New York QSO Party (NYQP). It is open to the HF bands AND, VHF, 6M, 2M, and UP. Phone / CW / RTTY / Digital. That leaves it wide open for all RVHFG members to participate and have fun. The rules were specifically written to get everyone involved. Let's all show some club spirit. Let's send, and receive some VHF signals during this event. You can find the rules at: <http://nyqp.org/wordpress/2013-new-york-qso-party-rules/>

# Classified Listings

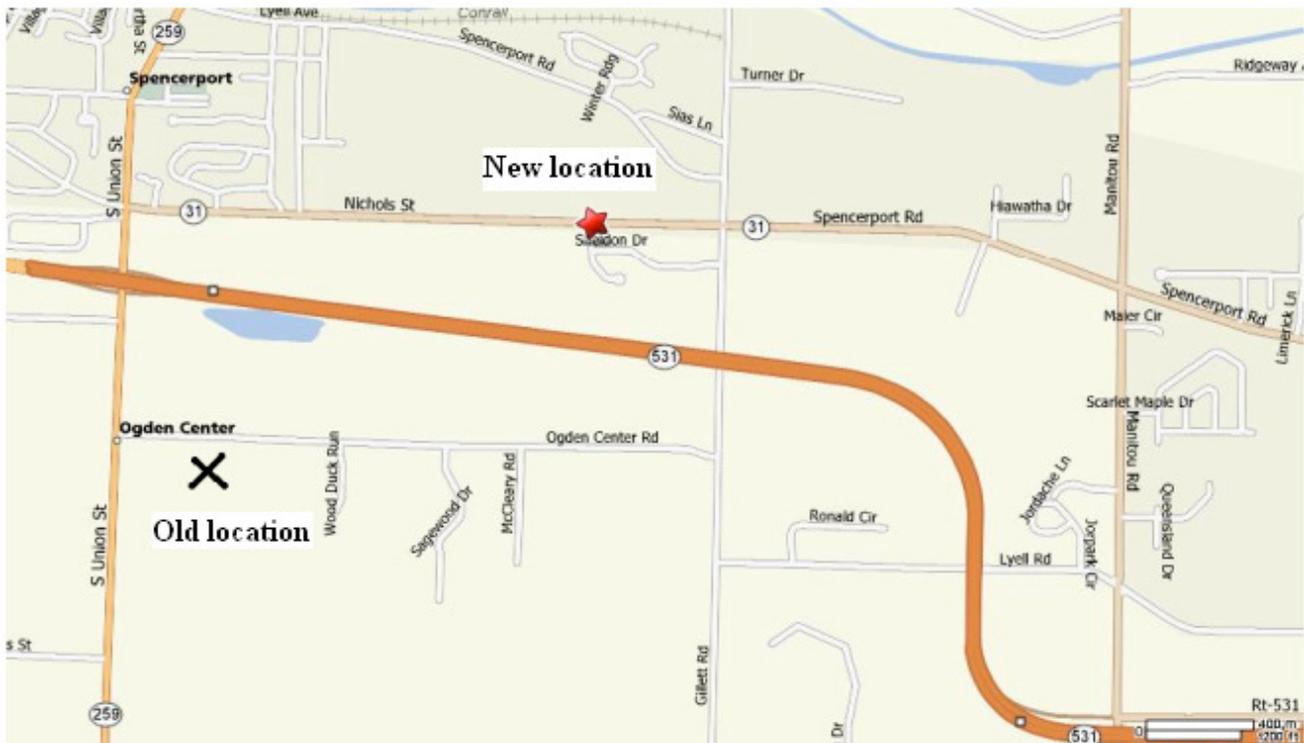
**TWO RACKS FOR SALE:** EACH HAS 35-INCHES OF VERTICAL RACK SPACE, EIA RAILS. DARK GREY RACK \$35 : 21.5-IN W , 15-IN D, BACK DOOR & WHEELS, LIGHTER CONSTRUCTION. LIGHT GREEN \$60: 22.5-IN W, 22-IN D, WHEELS, NO BACK DOOR, MEDIUM CONSTRUCTION. CONTACT AL GOSS, K2ERG, 482-3353.

**For Sale:** Icom IC-706 MK II XCVR -- HF (80 thru 10 meters) + VHF (6 meters). Manual and mounting bracket are included. \$585.

Also remote speaker, head holder for 706 MK II that fits in car console, plus all coax, power cords to battery, etc. \$15.

Irv Goodman, AF2K 585 671-4430

## 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.**