

Published by the Rip Van Winkle Amateur Radio Society, Inc.

# SKYWARN TRAINING

## Rip's Report

May 2014

Happy  
Birthday

Wayne-K2WG  
Martha-KC2MDY  
Mary-KC2SAG  
Philip-KC2YBJ

OUR REPEATERS ARE RE-  
PORTEDLY WORKING GREAT!  
GIVE THEM A TRY.  
REPORTS ARE WELCOME!

2015 dues are \$25.00 per individ-  
ual \$30.00 for family \$5.00 for  
students and active Military are  
free.

### 2015 Dues

Mail to:  
Stan Engel, WA2UET  
PO Box 153  
Ghent, NY 12075  
Or bring with you to meeting  
Make checks Payable to RVWARS

2  
0  
1  
5

D  
U  
E  
S

C  
A  
N

B  
E

P  
A  
I  
D



GOD BLESS  
AMERICA



Please join us on the Tuesday night Roundtable on  
147.210 at 7:00 PM. ALL are welcome!  
Use the EchoLink (K2RVW-R) if need be.



# EARLY CLUB MEETING

**6:30 SO SKYWARN CAN START AT 7:00**

See photos and past  
Newsletters and much  
much more club  
information at:  
[www.w2jsn.com](http://www.w2jsn.com)

## RVWARS WEB PAGE

The Web Page has been updated! We added some info on the main page to try to keep folks aware of events. Comments and suggestions are welcome. We will keep Dave Clappers design at least for now. Let me know what you think.

[www.rvwars.com](http://www.rvwars.com)

Join our Yahoo Group at the bottom of the web page. Simply enter your email address.

## N2LEN Repeaters

**The N2LEN Repeater Network:**  
147.150 114.8hz East Windham, NY  
449.025 114.8hz New Baltimore, NY  
448.275 114.8hz Colonel's Chair Ridge  
442.050 114.8hz Sam's Point, NY 2200'

### Yahoo Groups

<http://groups.yahoo.com/group/N2LENREPEATER/>

<http://groups.yahoo.com/group/ECHOLINK/>

<http://groups.yahoo.com/group/GCNYARES/RACES/>  
Echolink Node #6269  
IRLP Node #4207

## FIELD DAY JUNE 28-29

The Annual Field Day will be held on June 28-29 at the Claverack Town Park. Jules, K2KGJ is going to chair the event this year.

We will have the usual coffee and meals. Hope to see lots of members show to help with set up and tear down.

## FYI

RVWARS is a 501(c)(3) not-for-profit corporation. As such all monetary donations are tax deductible and donations of equipment are deductible. Please consider donating your idle equipment to the club for our use or for sale at the annual tag sale or auction.

## Skywarn Training

**After the May Meeting**

Please sign up at:  
<http://cstar.cestm.albany.edu:7775/skywarn/Talks.htm>  
Walkins are welcome as well!

**“Xerox and Wurlitzer will  
merge to produce  
reproductive organs.”  
Anonymous**

## RVW WORK PARTY

As soon as I can get the new antenna analyzer up on the hill with some folks that know what to do with it, we will want to get that spare antenna back up on the tower. We need to hire Arnie from NyAir to do that for us. We could use some help sometime to smooth the stone around the shelter just to make it look better. Also need to get inside the heat unit #2 to see if it can be repaired.

## SOME FUN 147.210 REPEATER DTMF CODES

Site Info:	Daily High/Low
228-Outdoor Temp >	900
229-Indoor Temp >	910
230-DC Volt Bat 1 >	930
231-AC Volt read >	920
232-DC Volt Bat 2 >	940

Resets at 1:00 AM Daily

\*\*\*\*\*  
450-To check your input to the repeater. Key up and type 450, when it says “ready” **QUICKLY** key up and record your short message, un-key and it will play it back as it heard it.

### WEATHER RADIO

**310-ON**

**325-OFF**

These codes will work on 449.925 as well as 2 Meters.

I would like to add a basic weather station sometime as well so we could access wind speed etc. up there. Feel Free to try them!

### Upcoming Events

## SKYWARN TRAINING

## ARES Meeting N2NZD-EC

### Weekly Nets

#### EVERY TUESDAY at 7:00 p.m.

Informal Roundtable on the  
147.210 repeater ALL are  
welcome.

#### 1st Wednesday of the Month

Columbia Greene-Emergency Net  
on the N2LEN 147.150 Repeater  
7:00 PM

### Repeaters

#### **BACK ON THE AIR!!!**

147.210/147.810 NO PL tone  
449.925/444.925 NO PL tone  
224.280/222.680 NO PL tone

### Vital Statistics

President — Tom Gutierrez, N2NZD  
Vice President — Don Peterson, W1SWM  
Secretary — Carl Roby, WB2TCV  
Treasurer — Stan Engel WA2UET  
Historian — Carl Verderber WA2UJX  
Safety Officer — Stan Engel WA2UET  
Repeaters — 147.210 224.280 449.925  
Club Call — K2RVW  
Club Special Event Call — WD2K  
Web Page — <http://www.rvwars.com>  
NEWS E-mail — [wa2uet@taconic.net](mailto:wa2uet@taconic.net)  
Yahoo Group  
<http://groups.yahoo.com/group/RVWARS/>

I NEED SOMEONE TO TAKE ON THIS TASK OF NEWSLETTER EDITOR! I HAVE NO EXPERTISE IN THIS KIND OF THING AND IT IS NERVE RACKING AND FRUSTRATING FOR ME TO TRY TO GET IT TOGETHER EACH MONTH. THERE HAS TO BE SOMEONE IN THE CLUB MORE CAPABLE THAN I. PLEASE CONSIDER IT. I TOOK IT ON AFTER DAVE PASSED AWAY JUST SO IT WOULD NOT GO AWAY. THANKS!

The May Newsletter is going out to a much larger group! There are MANY hams that I think would enjoy at least knowing that the RVWARS club still exists. I think and hope that some of the Hams that have had no contact with the club in many years might renew their interest and maybe join us at meetings and other events.

If you would rather not receive the NL for any reason please just let me know and I will remove you from the list. [wa2uet@taconic.net](mailto:wa2uet@taconic.net) Otherwise please pass along your thoughts. Your comments are welcome and appreciated.

### Rip Van Winkle Amateur Radio Society, Inc.

#### Treasurers Report

April 17, 2014

Balance Fwd. Checking Acct	\$1187.96
----------------------------	-----------

Rcpts:Dues	\$450.00
Grant	\$919.00
Auction	\$160.00
<b>Total</b>	<b>\$1529.00</b>

Exp: NYSEG	\$138.72
Subway	\$10.80
Renew Lighthouse License	\$21.00
Tower Rent	\$1.00
<b>Total</b>	<b>\$171.52</b>

Checking Bal	\$2545.44
Petty Cash	\$50.00
Savings Acct Bal	\$1011.40

<b>Total RVWARS monies</b>	<b>\$3606.84</b>
----------------------------	------------------





## MUSING OF A CURMUDGEON



The other morning we were soaking up the sun of an early spring morning while having a second cup of coffee on the porch. Taking stock of work to be done the tri-bander caught my eye. One thought led to another and suddenly it was many years ago and my first close encounter with a tri-bander came to mind.

Having arrived early at the Field Day site I was having a cup of coffee on another spring morning when the crew started putting up antennas. The mast went together easily and they began to lay out an assortment of aluminum tubing and fasteners on the grass. Within minutes a tri-bander was assembled and fastened to the mast and feed lines were being attached.

This was my first field day and everyone else seemed to know what they were to doing. I stood there by the pole having coffee, watching the swirl of seemingly chaotic activity as the many things which make up a Field Day set up took place around me. Suddenly a rope was thrust into my hand with instructions to "keep tension on that and tie it off to that pole when we get the beam up."

As that beam rose into the air the wind came up suddenly and a roll of thunder sounded close by. We tied it down the as the rain began and standing there under the eaves we congratulated one another on finishing just in time. What I didn't realize at the time was that much more than a rope had been handed to me. Tradition had been passed on to me and without a word I had been accepted as a member of the group.

Pouring the third cup of coffee the mind ran back over many June mornings since I became part of the antenna crew. I have hauled on that rope many times since and each time I think back to that first Field Day. The day an "old timer" stuck a length of rope in my hand and made me part of Field Day not merely an interested bystander.

April 96

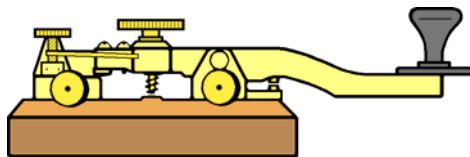
Dave Watrous, WD2K—4/96

## APRIL MEETING SPEAKER

At our April meeting we were fortunate to have Mike Lisenco, N2YBB as our guest speaker. Mike is the Director of the Hudson Division of the ARRL which includes Eastern New York, New York City, Long Island and Northern New Jersey. He travels throughout the division talking to clubs and individuals to promote the ARRL urging all hams to join. He mentioned three Hamfests coming up – Orange County on April 27, East Greenbush on May 10 and Mt. Beacon on June 8. Mike showed a PowerPoint presentation on the ARRL 2014 Centennial Convention to be held at the Connecticut Convention Center in Hartford, July 17-19 which includes tours of ARRL headquarters and W1AW in nearby Newington.

Pete Cecere, N2YJZ, Section Manager of Eastern New York, Hudson Division was also present and gave a short talk on his duties.

Don, W1SWM, VP



## AMAZON DONATES TO ARRL!

Amazon.com has a program named Smile that donates 0.5% of your purchase price to the registered charity of your choice. There is no cost to you. The ARRL is now registered as a charitable organization for the program.

To participate, go to <http://smile.amazon.com>. If you don't already have an Amazon account, you'll need to set one up. You'll be asked to sign up for the Smile program which is only a couple of clicks to select a registered organization. Simply select "AMERICAN RADIO RELAY LEAGUE INC"

Once you've signed up, please do your Amazon shopping by going to <http://smile.amazon.com>, and 0.5% of your purchases will be donated to the ARRL. Signing up is a one time process.

This is a simple and painless way to contribute to the League. For a FAQ about the program, visit <http://smile.amazon.com/about>.

73 de Mike N2YBB

ARRL Hudson Division  
Director: Mike Lisenco, N2YBB  
[n2ybb@arrl.org](mailto:n2ybb@arrl.org)

## PLEASE COME TO YOUR CLUB MEETINGS.

### Directions from the north to Churchtown firehouse...

Take exit 12 off of I90 onto route 9 south. Travel 4.6 miles to the traffic circle and take the first right out of the circle (not the mall) onto route 9H. About 11.5 miles you will come to a traffic light intersection of 9H and route 66. Go straight through that light for about 3.6 miles to the next traffic light at 9H and route 23. Again go straight through that light for about 1.1 miles to a left turn off of 9H onto County Route 27. It is marked. Stay on route 27 for about 2.5 miles and the Firehouse is on the right with a sign out front. Park in the lot just before the building.

### Firehouse from RVW Bridge and 9G.

From the intersection of 9G and Route 23 take 23 about 2.7 miles to the traffic light at the intersection of Route 9. Go straight through the traffic light and travel about 2.7 miles on route 9 to the next traffic light at the intersection of 9H and 82. Turn left at that light onto Route 9H about 2.8 miles to County 27. Stay on route 27 for about 2.5 miles and the Firehouse is on the right with a sign out front. Park in the lot just before the building.



## Secretaries Report

April 21, 2014

The meeting was called to order by President Tom Gutierrez, N2NZD at 7:00 pm.

The repeater Committee report was that Stan installed a relay to remotely turn on the heater/ac at the repeater shack. He reports that everything is working fine at the shack.

We had two prizes for the 50-50 donated by Pete Cecere, N2YJZ (ARRL Section Manager) and Mike Lisenco, N2YBB (ARRL Division Director), an ARRL handbook, won by Jules K2KGJ and Carl, WB2TCV won the ARRL antenna handbook.

Pete gave a short talk about ham fests in the area, mentioned that we should set our ARRL member profiles to receive emails from the section manager, division director etc. Pete then introduced Mike, our featured speaker.

Mike spoke about the cell phone laws and distracted driving laws and their relation to ham radio. He was able to get the New York State DMV attorney to write a letter advising that normal amateur use is not in violation of the cell phone law. (<http://hudson.arrl.org/new-york-state-dmv-opinion-cell-phone-law-and-distracted-driving-law/>) He also spoke about the W1AW/all states program celebrating the ARRL centennial. His entry in QRZ is below.

### ARRL CENTENNIAL CELEBRATION - QSO PARTY

Thanks for looking up N2YBB. If you hear me sending "DIR" in the exchange, it stands for "DIRECTOR" at the ARRL.

Part of the ongoing 100th year birthday celebration of the ARRL is the ARRL QSO Party. Everyone is encouraged to participate. Please read more at the webpage for the QSO Party. "DIRECTOR" is worth 225 points. If you send your log normally to LoTW, points will be determined for you. It isn't necessary to send an abbreviation in the exchange.

All ARRL members are valuable, so all QSOs count! To find the entire list of point values and appointment abbreviations, see the QSO Points Table.

The W1AW portable activations, along with W1ØØAW, and W1HQ, are all part of the year-long Centennial QSO Party too.

Please work me on all bands, all modes. Hope to see you in the pileups!

He also mentioned the ARRL national centennial celebrations which are listed at <http://www.regonline.com/builder/site/Default.aspx?EventID=1248082>

The meeting adjourned at 9:15 - reluctantly, we went home.

Carl, WB2TCV Secretary

## New and Old HAMS needed!

Columbia County (ARES) "Amateur Radio Emergency Service" and (RACES) "Radio Amateur Civil Emergency Services" are seeking new members. We currently meet once a month prior to the regular meeting. We do an occasional public service event as ARES members where we utilize our communications skills and equipment to assist with public safety. We assist the County with Civil Emergencies and disaster communications when they request us. No equipment required. No experience required. Total voluntary participation. Your help is appreciated when needed to maintain communications during disaster, emergencies or public service events. If you think you might be interested, please email me or ask at field day or an RVW meeting.

Thank you.

TomG (n2nzd@taconic.net)



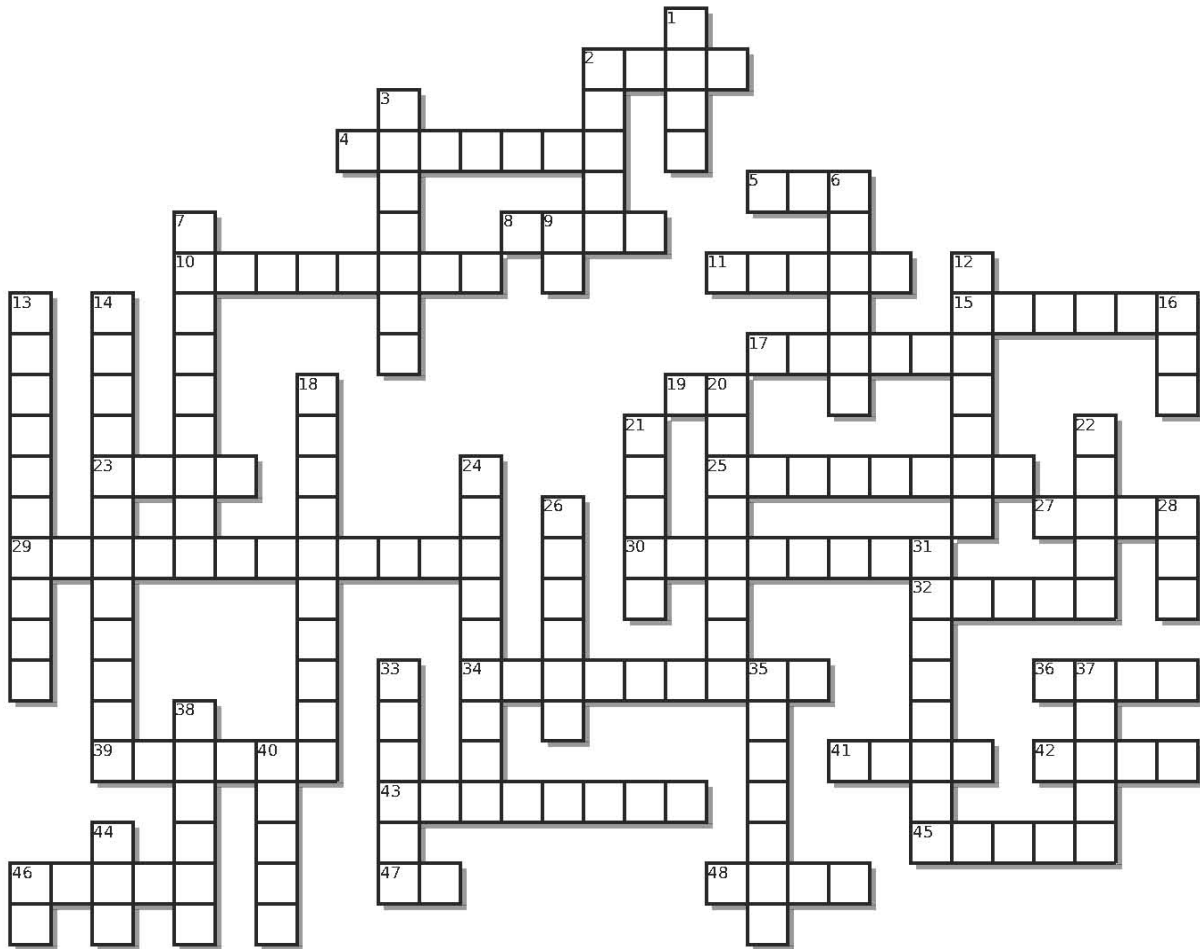
**Our summer picnic is scheduled for  
August 3rd at the Claverack Park,  
Please put it in you plans.**

One of the  
happiest moments  
ever is when you  
feel the courage  
to let go of what  
you can't change.



# Radio Terms

By Joe Squillace



## ACROSS

- 2 Soldering Aid
- 4 Cathode
- 5 Another Name for Cap
- 8 Early Radio Manufacturer
- 10 Current Blocker
- 11 Tube
- 15 Antenna
- 17 License
- 19 Direct Current
- 23 Control of Electron Flow
- 25 Power Cord
- 27 Type of Antenna
- 29 Type of Capacitor
- 30 Terminal of Battery
- 32 Type of Code
- 34 Cycles per Second
- 36 Incomplete Circuit
- 39 three Element Tube
- 41 Controls Electron Flow in Tube
- 42 Power Unit
- 43 Soldering Point
- 45 Display Tube
- 46 Coil
- 47 Radio Frequency
- 48 All American \_\_\_\_\_

## DOWN

- 1 Circuit Protector
- 2 Unit of Capacitance
- 3 Current Meter
- 6 Beginner
- 7 On the Air
- 9 Audio Frequency
- 12 9 Volt Source
- 13 Meter that Ohms,Amps,Volts
- 14 Find a Trouble
- 16 Record
- 18 Type of Pliers
- 20 Station ID
- 21 Instrument that Displays Wave Form
- 22 Two Element Tube
- 24 Changes AC to DC
- 26 Hertz
- 28 Transistor Type
- 31 Flow of Electrons from Cathode
- 33 Device to that Checks Components
- 35 Printed \_\_\_\_\_ Board
- 37 Tube Collector Element
- 38 Removes Ripple
- 40 Type of Pliers
- 44 Distress Code
- 46 Calling Any Station



# RVWARS REPEATER CHATTER

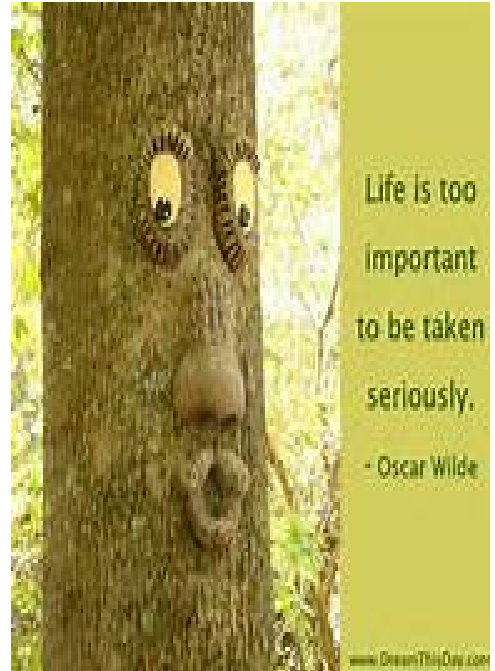
I am still open to any questions or suggestions about the operation and construction of the site. Also I would be happy to show and tell to anyone that is interested in seeing the site. (when the weather breaks)

I have contacted Arnie at NYAIR and we are going to try to schedule the spare antenna mounting on the next nice weather stretch we get. That will be on the lower bracket in the photo.

ALSO we have had an unlicensed HT user making some noise on the repeater. Most recently with some foul language. I have no idea where this gentleman is but if it continues we need to find him. I would ask that anyone that can hear him that you should try to see if you can hear him on the input to the repeater. If we can get some idea what area he is in we could go from there and locate him.

We now have a new RigExpert AA-1000 Antenna Analyzer thanks to a grant from Hudson River Bank Foundation! We have purchased the Antenna Analyzer and the Rigol Spectrum Analyzer from grants from the Foundation!

Stan, WA2UET



**The Meeting room in the Churchtown Firehouse is HUGE. Bring yourself and lots of other folks.**

## **ARRL Membership**

**Being a member of ARRL they will remind you to renew your license!**

**They will renew it for you!**

**Magazine with great information!**

**ARRL email address!**

**Good insurance on your radios available.**

*Join the RVWARS Yahoo Group. Go to the [www.rvwars.com](http://www.rvwars.com) web site and scroll to the bottom of the page and simply enter your email address into the box.*



# Churchtown Firehouse



From the West RVW Bridge or 9G take Rt 23 to the 9H intersection and either go North to School House Rd and to Churchtown Firehouse or go through the light and take Bells Pond Road to the Firehouse. From the North or from Hudson go south on 9H, from the traffic light in Claverack, about 1 mile, to County Route 27 on the left then 2.4 miles to the Firehouse.

Park in the lot to the right of the Firehouse and enter through the Main Entrance. Someone will be listening to the repeater and will help you if need be. "FIREHOUSE" is indicated on the right side of the map.

## Dayton Hamvention® 2014 Makers... The Future of Ham Radio

May 16-18 2014

Hamvention® is a premier Amateur Radio Convention & gathering of radio enthusiasts from around the world in May!

Since 1952, every year in the spring, Amateur Radio Operators from across not only North America, but from around the world gather for a few days. They are all there for the world's largest gathering showcasing hundreds of indoor commercial vendors. Indoor vendors at the Dayton Hamvention are typically the larger commercial vendors hailing from around the world. Some vendors also have booths in the outdoor flea market as well, sometimes offering the same products at slightly less cost.

### Indoor and Outside Flea Market

Featuring thousands of outdoor flea market vendors over three days.

Technician, General and Extra Class Amateur license exams will be given at Hara Arena on Friday May 16 starting at 12:00 noon until 6 PM and Saturday May 17 starting at 9:30 AM until 12 noon and 1:30 PM until 5 PM. There is no fee for these exams.

**Let's get a group together to represent our club in Dayton. Every ham should visit Hamvention at least once.**

**Email me at [ddp2222@gmail.com](mailto:ddp2222@gmail.com) if you're interested.**

**Don Peterson, W1SWM**





**DAY ONE AT  
THE EAST  
CHATHAM FIRE-  
HOUSE WITH  
WAYNE K2WG  
AT THE HELM.**



# EGARA Hamfest, hope to see many people there

**Saturday, May 10th, 2014, Rain or Shine!**

**At the East Greenbush Fire Company 68 Phillips Road, East Greenbush, N.Y.**

Vendor Set-up: 6:00 a.m.  
General Public: 8:00 a.m. to 1:00 p.m.  
General Admission: \$6  
Vendors:  
Pavilion: \$6 per table (Tables provided)  
Tailgating: \$6 per 8 foot space  
Hot Food All Day!

Breakfast: Sandwiches ,Doughnuts  
Lunch: Hot Dogs, Hamburgers, Chili  
Hot and Cold Drinks  
Door Prizes\*

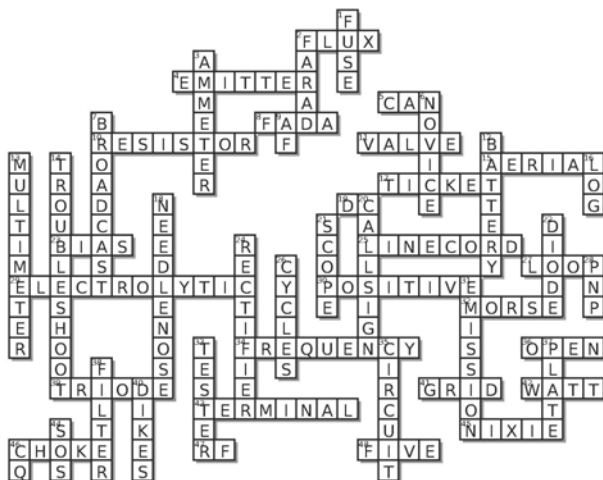
Drawings starting at 10:00 a.m.  
Grand Prize: 2 M Mobile Radio  
Grand Prize Drawing at 1:00 p.m.  
**MUST BE PRESENT TO WIN**  
For further information visit our website: [www.w2egb.org](http://www.w2egb.org)

Talk-In: 147.270 ( + ), PL 94.8 Hz  
From I-90: Exit 9 — US 4  
Merge onto TROY RD/ US-4 via EXIT 9 towards EAST GREENBUSH  
Turn RIGHT onto COLUMBIA TURNPIKE/ US-9/20  
Turn LEFT onto PHILIPS RD/CR-57  
FIREHOUSE, Hamfest Site is on the RIGHT

From NYS Thruway Exit 23 — I-787

Merge onto I-787 N via ramp on the LEFT toward EMPIRE PLAZA / RENSSELAER / TROY  
TAKE US-9 S / US-20 E, EXIT 3 toward RENSSELAER  
Stay STRAIGHT to go onto US 9/20 DUNN MEMORIAL BRIDGE.  
Continue to follow US 9/20  
Turn RIGHT onto PHILIPS RD/CR-57  
FIREHOUSE, Hamfest Site is on the RIGHT

Radio Terms  
By Joe Squillace



# HELP FOR NEW HAMS

By Dan Romanchik, KB6NU

In a box of stuff recently donated to WA2HOM, our amateur radio station at the Ann Arbor Hands-On Museum, there was a book W1FB's Help for New Hams by Doug DeMaw, W1FB. This book hits on just about all the topics that a new ham in the late 1980s would want to know about, and W1FB does a great job of walking the new ham through these topics.

Of course, being 25 years old, some of it, is out-of-date, and it doesn't cover some questions that a new ham today would ask. For example, there's nothing in this book about digital modes or using a computer in the shack.

So, I'm thinking of writing my own Help for New Hams. Mine would probably be a little less HF-centric and include advice on joining clubs and how to use a computer in the shack. I am also thinking that maybe I should write two separate versions: an HF version and a VHF version.

At any rate, I've listed the chapters of the W1FB version below. If you have any comments about what I should include in my version, I'd love to hear from you.

- \* The Newly Licensed Amateur. This chapter talks mainly about how to choose equipment, but also covers some of the modes that amateur radio operators can use.
- \* Your New Equipment—Getting Acquainted. This chapter discusses how to use the features of modern transceivers, amplifiers, and antenna tuners. It also talks a little bit about antennas and SWR.
- \* Constructing and Using Antennas. This chapter goes into greater depth on antennas. It discusses the different types of antennas, how to feed them, and how to bring feedlines into the shack.
- \* Station Layout and Safety. This chapter covers the practical aspects of setting up an amateur radio station, including desk and chair selection and station wiring.
- \* TVI and RFI—Strange Bedfellows. TVI and RFI are less of a problem these days than back in the 80s, but it's still something new hams need to know about.
- \* Operating Problems and Fears. This chapter discusses some of the operating problems new hams face, including honesty in signal reporting, how to operate split and how to work DX.
- \* On-the-Air Conduct and Procedures. This chapter discusses more operating procedures, including calling CQ, how to operate via a repeater, and how to ID.
- \* Station Accessories—What to Buy? This chapter discusses a variety of station accessories including keys and keyers, microphones, antenna tuners, phone patches (!), and antenna switches.
- \* DX and Contest Operating. This chapter not only discusses operating procedures, but how certain equipment features will help the new ham work more DX and score better in contests.
- \* Logging, QSL Cards, and Record Keeping. This chapter discusses why it is important to keep logs and how to QSL.
- \* Obtaining Accurate Information. This chapter is basically an ad for the ARRL, counseling the new ham to join the ARRL and buy ARRL books.

I am especially interested in hearing from new hams about these topics. What about amateur radio confused you at first? What information would have helped you have more fun with amateur radio? What do you know now that you wish you had known when you got started?

-----

When he's not writing about amateur radio, Dan, KB6NU enjoys Elmering new hams and working CW on the HF bands. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to [KB6NU.Com](http://KB6NU.Com) or e-mail [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).





## Items for sale de K2WG

1. Two Decibel UHF base station antennas. 20 years old but have not been in use since 2002. Exact model no longer manufactured but similar to current model ASP-705K 10 dB gain, 450-470, 500 watts, N female connector. Asking \$250.00 each or \$400.00 for both.

Contact: wayneg1231@fairpoint.net  
Phone: 392-5704

## For Sale

### 2012 Keystone Retreat 39 FDEN

Asking \$42,500

Call (518)784-3864

Ask for Mike or Patti or leave message



## PROFESSIONAL INSURED TOWER CLIMBER DISCOUNT RATES FOR HAMS

ANTENNAS - FEED LINES  
INSTALLED & REMOVED

CALL  
ARNIE CAVALLARO  
518-965-9299

Arnie Cavallaro  
Wireless Operations Mgr. Cell: 518-965-9299



Secure Wireless Broadband Internet  
Serving Greene and Columbia Counties

Visit NYAIR.net

**If your ad is no  
longer valid  
please let me  
know.**

## FOR SALE

For the news letter

Anyone interested in this package.

MFJ 962 tuner  
Ten-Tek HF rig  
Forty foot crank up tower  
CDR rotor & cable  
Coax cable  
Tri Beam Ant

You have to take it down  
Price total-----\$550.00

Wa2uyy  
Ron Coons Sr.  
518-945-3731

I have about 16 -120 volt pan cake fans  
plus protective guards if you know of any-  
one that needs one and 2-12volt 6watt.

10-- 10 watt fans----- \$4.00 @  
1--12 watt-----\$5.00 @  
3-- 20 watt-----\$5.00 @  
2-14 watt-----\$5.00

\$5.00 for the 12 volt fans @

Contact Ron, WA2UYY  
wa2uyy@aol.com

