



**OUR REPEATERS ARE REPORTEDLY WORKING GREAT!  
GIVE THEM A TRY.  
REPORTS ARE WELCOME!**

**2015 dues are \$25.00 per individual \$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

**2015 DUES ARE DUE!**



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.

**MARK YOUR CALENDAR**

**Meeting November 17**  
**Churchtown Firehouse**  
**Directions on page 6**  
**Anyone interested in Amateur Radio is Welcome**

# MEETING 7:00 PM

**PLEASE JOIN US WE NEED YOU!**

**INVITE FRIENDS AND NEIGHBORS THAT ARE INTERESTED!**

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 our web page. [Www.rvwars.com](http://www.rvwars.com)  
Simply enter your email address.

**NOVEMBER  
MEETING AT  
7:00 PM  
SKYWARN  
TRAINING AT  
7:00 PM**

## MEETING LOCATION

With the tally of the poll for our meeting location it has been determined that we will continue to meet at the Churchtown Firehouse. With a total of over 60 paid members there were only 13 people that responded!

## 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.

The new Technicians from the last class at E. Chatham with Wayne, K2WG teaching:

KD2GLL William Pilgrim  
KD2GLM William Simons  
KD2GLN Matt Pirrone  
KD2GLO David Sweet  
KD2GLP Tom Dias  
KD2GLQ Vicki Besterman  
KD2GLR Gene Truesdell  
KC1BWO Dan Salzarulo

The upgrades to General are:

KB2OQQ Tom Benjamin  
KA2YLZ Frank Stark  
KD2CCU Joline Pirrone

All of the new Tech's will have a complementary 2014 membership to the RVW club. Congratulations to all!!!

## RVW WORK PARTY

We did not get the stone raked off this summer. It is not a big deal but would look better if we can get it done next spring. I will let all know when I can help. We will also have to do some weed eating in the spring. That to was neglected this year. Other than that there is not a lot that needs to be done at the site. Todd took the junk away. We are in pretty good shape on the hill.

If we can get the money through a grant next year we will put some solar panels on the roof of the shelter.

## SOME FUN 147.210 REPEATER DTMF CODES

Site Info:	Daily High/Low
228-Outdoor Temp > 900	
229-Indoor Temp > 910	Resets at
230-DC Volt Bat 1 > 930	1:00 AM
231-AC Volt read > 920	Daily
232-DC Volt Bat 2 > 940	

\*\*\*\*\*  
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

### TO BE ANNOUNCED

### 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/>

## October 20, 2014 Meeting

The meeting was called to order by President Tom Gutierrez (N2NZD). Present were Tom, Secretary Carl Roby (WB2TCV), Vice President Don Peterson (W1SWM) and 10 other members. Discussions included:

Publicize an "Open House" meeting at the firehouse inviting high school, college students and firefighters with invitations posted at their sites.

Plan another Special Event at the Hudson-Athens Lighthouse. Six members indicated they would like to participate.

Install a club station at the firehouse to be able to show new and prospective members what we do.

Pete (NX2X) suggested we plan an activity with the scouts. He offered to organize the event.

Plan a 'Fox Hunt' (Amateur Radio Direction Finding). You are in the middle of the woods. Somewhere around you are 5 hidden transmitters. Your goal is to find them faster than any of the other competitors. Your tools: a map, compass and a receiver with a directional antenna. And your wits.

The November meeting will be Sky-Warn.

The December meeting will be our Christmas party at the firehouse with members bringing hot or cold dishes.

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

#### **Treasurers Report**

**October 20, 2014**

**Balance Fwd. Checking Acct      \$1286.20**

<b>Repts:</b>	Dues	\$50.00
	50/50	\$14.00
	Donations	\$
	Scrap Metal	\$146.00
	<b>Total</b>	<b>\$210.00</b>

<b>Exp:</b>	NYSEG	\$55.78
	Postage	\$10.04
	Subway	\$10.80
	Home Depot	\$53.16
	<b>Total</b>	<b>\$129.78</b>

<b>Checking Bal</b>	<b>\$1366.42</b>
<b>Petty Cash</b>	<b>\$50.00</b>
<b>Savings Acct Bal</b>	<b>\$1011.43</b>

**Total RVWARS monies      \$2427.85**



## MUSING OF A CURMUDGEON



Not so long ago we were worried about the influx of new amateurs and upgrades overpopulating the bands. The prevailing wisdom was that a wave of signals would hit the bands making them so crowded that no one could enjoy the hobby. It would be the end of the hobby as we knew it.

Now that a great silence has settled over the bands it appears that maybe the opposite has happened and the great gains projected will not happen. It looks like another case of folks wanting something given to them and when they got it found it was not to their liking. HF with its relatively expensive equipment, large antennas, atmospheric noise and unstable band conditions is not for everyone.

You have to be a little different to spend hours listening through the static crashes in order to hold a conversation with someone you will never meet.

Maybe it requires a slight divergence from center to enjoy spending more hours discussing the relative merits of various antennas or how to properly ground your station.

Spending weekends contacting a many stations as possible to utter the magic words "You are 59" or hammering away at a key that "UR 599" might just make someone suspect that maybe one of your oars just doesn't quite reach the water but all of this is what many of us are hooked on.

Whatever the reason the great truth that has come out of the changes is that HF operators march to a different drummer. We would do whatever is necessary to get the privileges and equipment that allow us to send our signal out in the hope that someone will answer us who understands the importance of SWR. Someone who will understand the need to have someone one a isolated reef tell us he also has felt the magic that one can only feel on HF. That is what that "59" means, an exchange between two people who share a fascination with radio in all its modes. Without that feeling you could issue every-one an Extra license at birth and the bands would be no more crowded than they are now. The "big change" was really no change at all.

By Dave Watrous, WD2K Dec 2000

## SCRAP METAL SOLD

We had a bunch of scrap copper and several heavy batteries at the repeater site that needed to be removed. Todd, KC2YKM volunteered to take them to the yard in Albany. There were 8 old gel cells that weighted over 100 pounds each. Todd loaded all the batteries and copper (also heavy) on the back of his truck and came back with \$146.00 for the treasury. Thanks Todd for helping to clean the site and fatten our bank account!!!

## CURMUDGEON NEEDED!

It's imperative that we find another "Curmudgeon" as soon as possible! I am out of Dave, WD2K's great Musings. This one is a reprint from our 2011 newsletter.

Someone out there should be able to carry on the tradition. Please send me your Musings!!!

## PLEASE COME TO YOUR CLUB MEETINGS. WE NEED YOU!

### 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.

## 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)



# RVWARS REPEATER CHATTER

I have installed a cable and interlock device for use with the emergency generator. We have not tested it yet but will soon. The mechanical interlock makes it impossible to connect the generator without disconnecting the main breaker.

The spare antenna is located on the lower bracket in the photo and seems to be working fine.

The old shelter has been cleaned up and the generator and associated gear are stored in there. The wire and cable is hanging on the wall clearing the floor so that we can discourage the snakes from living in there. There is no evidence of any other critters in there.

Stan, WA2UET



Hello Folks,

I have been going to the ARRL Headquarters recently and getting on the Air at the W1AW Hiram Percy Maxim Memorial Station.

This year is the 100th Anniversary of the ARRL so if you go and operate from W1AW This year you will use the Call Sign W100AW. Whiskey One Zero Zero Alpha Whiskey.

I have been having some fun getting on the air as W100AW and working Lots of people from all over the place. Last Wednesday KC2WLR Pat went along with me for the ride and to get on the air. We Each worked over 200 stations in less than 4 hours of total time on the air.

Monday Oct 20, 2014 I went alone and talked on 12m to about 200 stations again.

I suggest you take the about 2 hour drive over and take the ARRL Headquarters tour and get on the air at W100AW too.

<http://www.arrl.org/w1aw>  
73 K2HAT Lee Hatfield Jr

Editors note: We went there several years ago and found the museum awesome as well! And a great tour of the headquarters.



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

**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.**

## QNZ....de K2WG

Opportunity. When it knocks, make sure you open the door and let it in. We have an excellent opportunity knocking at our doors to welcome new hams to our ranks. The RVWARS sponsored a two day Technician Class License preparation course this spring resulting in several new hams and a couple of upgrades. The new hams are KD2GLL William Pilgrim, KD2GLM Bill Simons, KD2GLN Matt Pirrone, KD2GLO David Sweet, KD2GLP Tom Dias, KD2GLQ Vicki Besterman and KC1BWO Dan Salzarulo. The upgrades to General are KB2OQQ Tom Benjamin, KA2YLZ Frank Stark and KD2CCU Joline Pirrone. Another opportunity presents itself in participation in VE sessions. If you are already a General or Extra another opportunity awaits. Why not become a Volunteer Examiner and assist in giving the licensing exams to new and upgrading hams? The process requires you to submit some qualifying paperwork but it is a straightforward process. Check out the VE information at [www.arrl.org](http://www.arrl.org).

Often we hear fellow hams lamenting the fact that several new hams received their licenses, came to a few meetings, were heard on the air a few times and then they seem to have disappeared. What happened to them? Have these new hams been mentored by one of our members after they got their license? Have they been welcomed with open arms into the ham community? Have their mistakes and lack of skill been corrected politely and with encouragement? Do they feel that their time at meetings has been worthwhile? Have they been invited to participate in public service events? Is their 'ham radio career' being monitored and supported by a mentor? Another opportunity: even if you feel that you are not able to be a presenter at a Technician Course at least come to the class sessions, get to know the candidates and support them during the course and offer to be there for them after the course and throughout their 'ham radio career', offer to be their mentor and their coach.

After spending 32 years in public education and 12 years as an instructor in the fire service, I can vouch for the fact that the best way to really learn something yourself is to prepare to teach it and then teach it to someone else. There is much more to ham radio than VHF and UHF repeater activity. It's a good place for new hams to get started and get their feet wet, but as mentors let's teach the new hams about HF voice modes, digital modes, and yes, CW. Let's not just explain how to operate using those modes but let's also explain the technology behind those modes. How does SSB work? Why does CW and most digital modes get through when voice doesn't? In the process, we will all become more knowledgeable about these aspects of ham radio.

Let's discuss some of these topics during our meetings and during the Round Table. How about a 15 or 20 minute technical presentation at each meeting? Have some used equipment you'd like to get rid of? Donate it to the club to be passed on to new hams that aren't really sure what they want or need. The stipulation would be that they are to pass it along to other new hams when they are finished. Why wait for the annual auction? Got something to sell? Bring it to the monthly meeting, have interested members make offers, if an offer works for you make the sale and give a percentage to the club for repeater expenses. How about those of us that sell items via ads in the newsletter give a percentage to the club for repeater expenses?

Let's talk up ham radio! Let's always be positive about the hobby and public service during our QSO's. Let's help Stan with the newsletter. Everything you do with the hobby is good material for the newsletter. Write about a new rig, a new antenna, an interesting QSO or your experiences at a hamfest. Literary skills are not mandatory. Send in your contributions and the editor will do the rest. Include pictures! Help make the newsletter an interesting read for veteran and new hams alike. Not every-

one shares the ideas I present in this column. Perhaps we could get some "Point and Counterpoint" discussions on the pages of the newsletter. Let's not get too complacent about the hobby. Let's each do our part to keep ham radio alive and well.

I'm not a real serious contester but I had some fun this past weekend during the CQWWDX contest ([www.cqwwdx.com](http://www.cqwwdx.com)). I was trying out a new antenna (ENDFEDZ EF-QUAD 10m/15m/20m/40m [www.lnrprecision.com](http://www.lnrprecision.com)) and used 100 watts or less from my FT-897D transceiver. I worked 29 different countries/islands on 10 meters, 17 on 15 meters and 12 on 20 meters. I ended the contest period with a total of 84 contacts. I was so busy on those three bands that I didn't get a chance to try 40 meters. Nice propagation pipe line to Europe and the Caribbean on 10 and 15 meters. I'm hoping to get on the air for both the ARRL CW and Phone Sweepstakes coming up in November. Hope to hear you on the air!

73 for now.... AR....SK....de K2WG

**THE COMPLETE CONSTITUTION  
AND BY-LAWS DOCUMENT IS ON  
OUR WEB SITE AT  
[WWW.RVWARS.COM](http://WWW.RVWARS.COM)**





# 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.

## 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)

**We are considering putting a HF/VHF station in the firehouse meeting area. Details are just being talked about. If it works out members and guests could do some operating before and after the meeting.**

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

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## Portable Tube AM Radio

By: Carl J. Verderber WA2UJX

Oct. 14, 2014

About 20 years ago I acquired a tube portable radio in perfect physical condition. I thought the \$3.00 spent was a bargain just to be able to look at it once in a while. Then last month while looking for some parts in the shop I came across the radio and wondered if I could get it working.

It is a 1955 Westinghouse 4 tube portable using a 1.5 V D size battery to provide filament power and a 67 VDC "B" battery. The first thing I did was to find a circuit diagram and cost of a 67 V battery by looking on the internet. Well the battery cost was out of the question – way too high for something I wasn't going to use very often.

After testing the tubes (all were OK condition) I installed a D battery and connected a Kepco 0 – 500 VDC regulated bench power supply dialed-up for 67 V and turned on the set. It immediately came to life! I forgot how fast the miniature 1.4 V filament tubes get to temperature – almost as fast as a transistor set. The volume was nothing to brag about but the little set brought in a lot of stations. Now it was time to see if I could find an alternative to the pricey B battery.

I investigated fabricating a tiny switching supply to produce the 67 volts needed but even though suggested circuits exist, getting a switcher tested and packaged would take too much time. Then I tried a 9 volt transistor battery in the space where the original would sit and the width and height were correct. So I scrounged around for seven new and used 9 volt batteries and soldered them in series. I got 65 volts and taping them together, I placed the package into the radio. It "fit like a glove"!



So now I have a nicely working 60 year old radio that I don't use very often but when I do it makes me smile. I can remember back when I was 10 years old and wanted a portable radio and never got – but now I have one!

**Electronics Garage Sale:** Estate of Warren Davis, SK Former W2WCD (previously N2BFF) The family is holding a garage sale for the items on:

- Date & Time: Saturday, November 8th 9AM - 5PM
- Location: 2912 New Scotland Rd, Voorheesville (On Route 85, up hill from New Salem, approx 100 yds on left past Rte 157 turn off to Thatcher Park)

Google maps link:

<https://www.google.com/maps/dir//42.6141198,-73.9738052/@42.614077,-73.9762116,17z/data=!3m1!4b1>

Items include:

Electronic Parts, 100 or so New Tubes, HP Test Equipment, Tek Scopes (485, 465, others), TDR's, Vintage Meters, Vintage Radios, Boonton RF Voltmeters, 100 or so New Helix Connectors (mostly 1/2"). Some Vintage Test Equipment, Signal Generators and the like. Many Bench DC Power Supplies.

Lots of assorted RF Connectors, Adapters, Cables, Brother P-Touch Labeling Systems and Tapes. Several Scope Carts. Several GE Tube Caddies full of New Tubes. Antenna Specialists Ball Mounts and Whips, Asst. Antenna & Tower Hardware, Rohn tower components. Many 1/2" Hard Line Connectorized Jumpers of various lengths. Too much more to list but worth the drive to check this out!



# Twitter: another tool in the ham radio toolbox

By Dan Romanchik, KB6NU

It all starts innocently enough. You get a computer to do your logging, and before you know it, you're working digital modes. Then, you snake an Ethernet cable down to the shack or connect to your wireless router. Pretty soon, you can't do without having a browser window open to one of the DX clusters or ReverseBeacon.Net or QRZ.Com or all three simultaneously.

Well, now's there another Internet service that I can't do without down in the shack: Twitter! I get on Twitter all the time now when I'm in the shack, and I love it. It's truly enhanced my amateur radio experience.

One of the ways it's done this is by bringing me all kinds of interesting technical information. I not only follow @hackaday and @DIYEngineering, and @EDN.Com, but a bunch of hams who are doing fun things. I hate to list some, for fear of leaving some out, but I will give a shout out to @NT7S, @AA7EE, @mightyohm, @caulktel, @LA3ZA. There's even @HiramPMaxim (the P stands for "parody"). If you go to my blog at KB6NU.Com and search for "From my Twitter feed," you'll find links to some of the most interesting Tweets that have found their way to me.

I'm also following a couple of amateur radio retailers. Today, for example, @DXEngineering is offering \$55 off the RigExpert AA-54 Antenna Analyzer.

I also use it to get information about weather conditions and band conditions. For example, I follow @edvielmetti, who is KD8OQG. He's always tweeting about local severe weather. A Tweet from him gets me to turn on my 2m radio to monitor the local SkyWarn net.

As far as band conditions go, I throw out a Tweet, asking about band conditions, and in seconds, I'll get reports from my followers here in the U.S. and around the world. I try to do my part as well. When I fire up the rig, I'll Tweet out a report of how the bands seem to me.

While all of this is great, it's really all about the people. I currently have more 2,200 followers and I follow more than 900. I would never have met some of these hams if it wasn't for Twitter, and I have since worked several of them on the air after first meeting them on Twitter. Last May, we had a "Tweetup" at the Dayton Hamvention. There were at least 20 of us there. How cool is that?

Twitter isn't for everyone, but I'd encourage you to give it a try. I'm having a lot of fun on Twitter, and I think you will, too. If you do set up a Twitter account, please follow me, @kb6nu. If you mention that you read this column, I'll be sure to follow you back.

When not Tweeting about his latest amateur radio exploits, you'll find KB6NU working 30m CW or teaching ham radio classes. If Twitter isn't your thing, you can still follow him by reading his blog at [www.kb6nu.com](http://www.kb6nu.com).

## MFJ-1868 discone antenna

I installed a MFJ-1868 discone antenna that I use for my scanner: Uniden bearcat BCT-15X. It receives and transmit from 50-1300 MHz, the information claims. I have 'tested' this antenna on some of my FM Rig's, being: 2 mtr, 440 MHz alinco, a Jetstream 220 fm 50 w, and an Alinco 6 mtr fm. All these band's work from my antenna, the mfj-1868. This antenna also comes with a 50 ft. length coax w/ connector's, both ends.

I placed this antenna on 1 inch metal TV mast at about 15 feet height from the base.. approximately 20 ft.From apex to ground. The antenna is base mount grounded to the metal mastpole. I have my mastpole going into an iron post that was a formerly 'picnic' bbq grill mount... The bbq grill is long past 'history' (eroded away).

The post was emplaced about 4 feet deep, and concrete poured and dirt covered to lawn level. I have also 'added' for better 'benefits': copper and aluminum 'bits/pieces.. to the bottom of the inside piping: (gnd'ng effect).. before I installed the TV masting inside this cast iron mount pipe. Conclusion to my experimentation without an analyzer or swr/watt mtr.. just a 'plug &play' setup: It works for me for my local base activities. I have no 900 MHz or 1200 MHz rigs for further 'testing'.. but wish to pursue these modes in future, hopefully. This antenna is ideal for me: purchase price mostly nil, (coax 'free').. and a good 'test rig TX opportunities. I have this coax going to my base stn.. I can also 'drop the coax' to my basement desk.. where I have a 2 mtr, 6 mtr (fm) and 220 fm. I use a 'workman' 3 coax connector switch.. that gives me my '2nd stn' vhf/uhf... while my pc and TV is also readily available for my leisure/pleasure ;-). my basement stn is for my woodstove 'activities' in colder weather.. my total electric house.. needing my secondary heating source ;-)

Now i can do both worlds: woodstove duty And ham radio lol. I'd 'recommend' this antenna as a good 'starter' or fast&sure way of getting some test results and qso's :-)

This is my story of my latest antenna installation at my qth. My other base antenna's are:

55'x2 inv.vee@25 ft

A-99 gp

5btv gnd.mtd. w/12,17 Mtr 'resonator's 'added-on'

dx-b sloper: 160/80/40/30 Mtr @ 20 ft.

11 ele. 2 mtr yagi w/ 6 mtr ar-6 vertical 'sharing' same 'mastpole bracing' on house siding

arx2b fm

50-450 mhz logperiodic

my mobile info:

2008 silverado 4x4 truck, 2/440 mhz fm rig, 220 mhz fm rig, 6 mtr ranger all mode, cb cobra 11 mtr. I presently have no ht's..my motorcycle (2006 kawa 900lt) is also a 'dummy load'.. that is a 'bummer' i hope to have 'corrected' by coming springtime ;-). har har All the 73 es fb dx! cheers-ke2eb George.

## AN OFF CENTER FED 40 AND 20 METER ANTENNA

(and unexpected problems with stray currents on the coax feed)

By Julius Madey, K2KGJ

When my grandson William, KD2GLL, earned his General Class ticket this summer, we started to look for a simple but effective HF antenna that would fit the available space around his house and yard.

Nearest trees were over 150 feet away from the house and the highest point on the house that would support one end of a wire antenna was about 25 feet. A rising slope at the back of the house suggested an antenna anchoring point in that direction so we pounded in a 7 foot steel T fence post and fastened an 8 foot 2x2 to that for an elevation of about 13 feet.

The more or less 'natural' direction for the antenna wire was north/south which meant good coverage to the east and west. An off center fed dipole (sometimes called a Zepp) looked like a good choice since ground clearance for the feedline would be better with the feed point closest to the house.

The plan was a  $\frac{1}{2}$  wave wire on 40M with the feed point 25% of the way out from the house end. EZNEC predicted a feed point impedance of about 100 ohms on both 40 and 20 for the wire which was at ~25 feet at the house end and 13 feet above ground on the rising slope of the other end.

I decided on a  $\frac{1}{2}$  wavelength at 40M feedline of RG-58 for minimum interaction of feedline impedance with the actual feedpoint impedance (remember that transmission lines that are a multiple of  $\frac{1}{2}$  wavelengths long repeat whatever impedance is connected at the other end of the line). Checking out Jerry Sevick's (W2FMI) great book on Transmission Line Transformers disclosed a simple transformer on a torroid core that should give a 1:2 impedance ratio.

The transformer was unbalanced to unbalanced so I followed it with a 1:1 balun, also on a torroid core. A check with a BlueTooth connected antenna bridge hung at the feedpoint of the wire (without feedline) verified approximately 100 ohms at resonance at both 20 and 40. The antenna length was trimmed for resonance in the general phone sections on both bands.

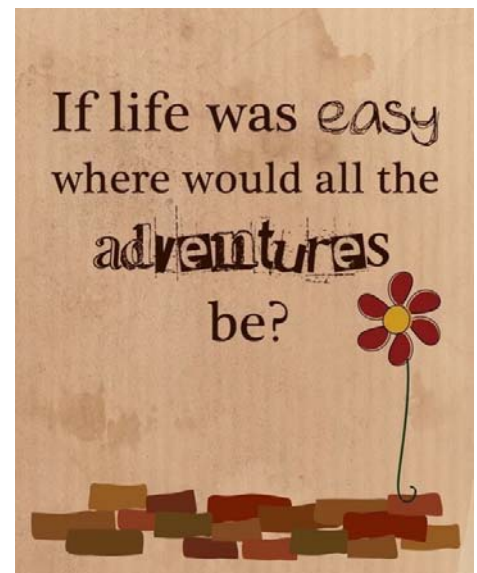
An operational check at the rig end showed a reasonable 1.5:1 on 20 on a Diamond SWR/Power meter but high SWR on 40 meters. Hmmm. The antenna bridge alone gave reasonable results on 20 and 40; that is until I realized that operating SWR checks with the rig put the coax shield at ground but the stand alone antenna bridge did not ground the shield. When the shield was grounded, the impedance results went wild.

Couldn't think of anything but unwanted currents on the shield of the coax feedline. The balun should have taken care of that, but obviously did not. The balun (a typical Sevick design) was rewound with more turns that provided a measured isolation of around 500 ohms at 40 meters. Tests showed that was not quite enough so we tried seven FairRite #43 cable beads strung on the RG-58 at intervals of about 32 inches starting at the feed point end. The additional suppression beads added an estimated 1000 ohms of isolation at 40M.

That did it. Bridge measurements on 40 and 20, with the shield grounded and ungrounded showed unchanged values with impedance on 40 and 20 between 40 and 60 ohms.

We also tried a modification in EZNEC by adding a stub on the long side of the wire that was  $\frac{1}{4}$  wave long at 17 meters and angled down about 20 degrees. Initial results showed that it might be possible for the antenna to cover 40, 20 and 17 with reasonable SWR on all three bands but we haven't tried to add the stub yet.

I strongly recommend Sevick's Transmission Line Transformer book and the use of ferrite suppression beads on coax in place of a coiled coax 'choke' below the feed point.



# Fabrication of Instrument Panel Meters for a 1911 Baker Electric Auto

By: Carl J. Verderber WA2UJX  
Oct. 24, 2014



The Baker at the Old Rhinebeck Aerodrome

His challenge: the meters that monitored the battery voltage and motor current were not working. He asked me to come over to the Aerodrome to see what could be done. When I saw that the previous meters had been under water and rusted inside, I decided to invest some time in the project. These old meters weren't repairable. The auto was designed to operate for 40 to 80 VDC with 60 VDC from 10 – 6V deep cycle batteries chosen to be the power source.

Researching the Baker Electric yielded photos of an original dual sided meter but trying to find one or duplicate the original was beyond our capability. A set of functional units would suffice. Two similar looking meters (See: fig. 3) were selected and characterized to find their current requirements. One was 7 mA (0.007 A) full deflection and the other was 1 mA (0.001 A) full deflection. Meter scales were disassembled and recalibrated to reflect the observable voltage and current needed for operating the auto.



Figure 3 Completed Meters

unique automobile? I was told there were only 4 Bakers still operating in the World and Jay Leno has one or more of the rest of them. Did I drive this car? Well yes - but it is too quiet for me so I'll leave the driving to others for now. End

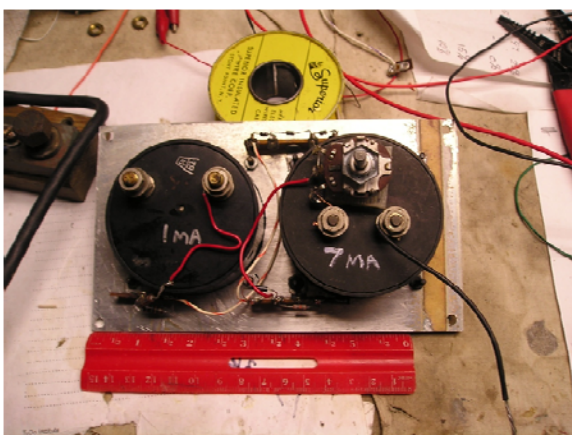


Figure 4 Components mounted in rear

This article has nothing to do with Amateur Radio but some electrical circuit functions might be interesting.

During the winter of 2012-13 Sean Crimmins, an acquaintance with similar mechanical and electrical interests, coerced me with a challenge. He enticed me with the privilege of being the first to ride a restored Baker Electric Automobile when it was completed. The auto is the property of the Old Rhinebeck Aerodrome and Museum. It will be used in the Saturday and Sunday Aerodrome shows and to participate in local parades.

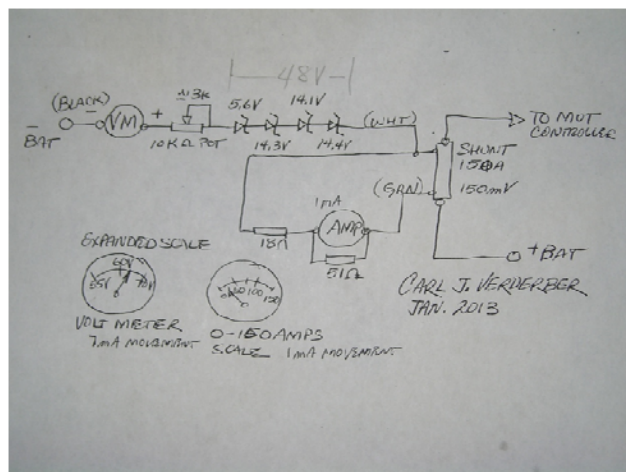


Figure 2 Meter Circuit

Measuring the meter shunt to find its resistance it became obvious how to configure the current meter circuit. The shunt provides 1 mV/A or 150 mV at 150 Amps of motor current.

The voltage scale is "expanded" and starts operating at about 45 volts with 60 volts near the center. The 7 mA meter was used for this application. The 1 mA meter used for motor current has a linear scale from 0 to 150 Amps DC. (See fig. 3). I designed the meter circuit (See: Fig. 2).

After fabricating an aluminum mounting plate the circuit components were positioned and functionally tested.

This project was well worth the effort and I had a lot of fun working with Sean and others. How many people can get direct contact with a very ancient and



Figure 5 New meters located under front seat



# HOW "HAM" GOT IT'S NAME (4 IDEAS)

Thanks to Pat Hogan, KC2CVJ

The term "ham operator" was commonly applied by 19th century landline telegraphers to an operator with poor or "ham fisted" skills.

Early radio (initially known as wireless telegraphy) included many former wire telegraph operators, and within the new service "ham" was employed as a pejorative term by professional radiotelegraph operators to suggest that amateur enthusiasts were unskilled. In "Floods and Wireless" by Hanby Carver, from the August, 1915 Technical World Magazine, the author noted "Then someone thought of the 'hams'. This is the name that the commercial wireless service has given to amateur operators..."

Even among amateur radio operators, the term was used pejoratively at first by serious experimenters. For example, in December 1916 QST magazine, an amateur operator working on long distance message passing describes one way to avoid interference was to send messages "...on Thursday nights, when the children and spark coil 'hams' are tucked up in bed" (a spark coil was an unsophisticated radio transmitter, made from an automobile ignition coil, that produced noisy interference).

But only a few months later, in an indication of the changing use of the term among amateurs, a QST writer uses it in a clearly complimentary manner, saying that a particular 16 year old amateur operator "...is the equal of a ham gaining five years of experience by hard luck."

Use of "ham" as a slur by professionals continued, however. A letter from a Western Union Telegraph Company employee, printed in the December, 1919 edition QST, showed familiarity with the word's negative connotations, expressing concern that "Many unknowing land wire telegraphers, hearing the word 'amateur' applied to men connected with wireless, regard him as a 'ham' or 'lid'".

But many other amateurs increasingly adopted the word "ham" to describe their hobby and themselves during this period, embracing the word that was originally an insult, similar to the way Yankee Doodle evolved, as seen, for example, in Thomas F. Hunter's exuberant "I am the wandering Ham" from the January, 1920 issue of QST.

## "A little station called HAM"

This widely circulated but fanciful tale claims that, around 1911, an impassioned speech made by Harvard University student Albert Hyman to the United States Congress, in support of amateur radio operators, turned the tide and helped defeat a bill that would have ended amateur radio activity entirely, by assigning the entire radio spectrum to the military. An amateur station that Hyman supposedly shared with Bob Almy and Peggie Murray, which was said to be using the self-assigned call sign HAM (short for Hyman-Almy-Murray), thus came to represent all of amateur radio. However, this story seems to have first surfaced in 1948, and practically none of the facts in the account check out, including the existence of "a little station called HAM" in the first place.

The 1909 Wireless Registry list in the May edition of Modern Electrics listed Earl C. Hawkins of Minneapolis, Minnesota, as operating with the callsign "H.A.M.", which was likely assigned by the magazine

## Hertz-Armstrong-Marconi

It is sometimes claimed that HAM came from the first letter from the last names of three radio pioneers: Heinrich Rudolf Hertz, Edwin Armstrong, and Guglielmo Marconi. However, this cannot be the source of the term as Armstrong was an unknown college student when the term first appeared.

## Hammarlund legend

Likely an example of corporate wishful thinking, Hammarlund products were supposedly so preeminent in the pioneering era of radio that they became a part of the language of radio. As the story goes, early radio enthusiasts affectionately referred to Hammarlund products as "Ham" products, and called themselves "Ham" operators. In truth, Hammarlund was a minor and barely known company at the time "ham" started to be used.

## HELP NEEDED!

Members,

I received my license a couple of years ago after many years of absence from ham radio. My primary interest is in portable operation and I could use advice from any member who has explored this area, especially light antennas for 20 meters.

This summer I operated from an off-road (boat access only) camp in northern Quebec for several weeks using both a G5RV Jr. (at only 25 feet height) and a 1/4 wavelength Buddipole vertical (no coil) with four 1/4 wavelength above ground radials using 5 to 10 watts. Both seemed to work reasonably well, enabling contacts in the Americas and Europe. The problems were size, weight, and the need of good trees. This fall I operated for several days from another boat-access camp in the Adirondacks using a home built wire vertical with four above ground radials, again with 5 – 10 watts. I would say that performance was fair. Solves size (baggie) and weight (under a pound) problems and only need 25 foot height in a tree, but I am not so sure on performance and I still need that tree.

Where I need help: Is there a better antenna? Delta loop? How about TSA acceptable batteries? How large an A123 series will they pass? Other options? Other experience with the airlines and ham gear? Can someone give me guidance on SOTA? Are there other members who are active in or would like to try activating a SOTA mountaintop? Catskills?

I will plan to bring my current rig (5.25 pounds) to the next meeting to seek advice or stimulate conversation.

Thank you for your consideration.

KD2DNJ, Jim, fjimtuttle@gmail.com



# **Amateur Radio, the new Wireless Revolution and the Information Age**

By Julius Madey, K2KGJ

A lively discussion about improving club membership participation and attracting new active members to the club took place at the October meeting on Monday, October 20, at the Churchtown Fire House.

A number of concerns and ideas were brought up and two or three members agreed to follow up on specific things such as finding a place for a permanent club station, reviewing ARRL material on membership recruitment and working with local scout troops on a radio merit badge program.

If I recall correctly, someone also volunteered to write up a summary of the discussion for the newsletter. My purpose here, however, is to take a fresh look at Ham Radio in the context of the present Information Age as well as the growing Maker movement. I think we'll find that our hobby is very much an activity with present and future value to a fairly broad audience.

Currently, there seems to be an almost insatiable appetite for Internet connectivity by users of mobile devices. That continues to spur a rapid growth in wireless connectivity infrastructure as well as an almost desperate push for new wireless spectrum and techniques to maximize information transfer rates over existing and new bands. We are in the midst of a new wireless paradigm shift.

Earlier wireless paradigm shifts starting with Marconi and including amateur radio, commercial radio broadcast and television, required a certain working level of understanding of the technology on the part of the user, less by the time TV arrived; but few viewers of that media escaped messing with antennas until the plug and play cable system came along.

However, in the present wireless revolution, the general user interfaces with a device through a software driven application, while the underlying wireless technology remains pretty much hidden.

How does Amateur Radio relate to the current wireless revolution and the general information age we live in? As a start, let's take a look at some of the common structures of information exchange networks and an exchange between two Amateur Radio stations in that context.

Cliff, N2FN, remarked at the meeting that EchoLink wasn't really ham radio. Well, yes and no, but to think about that more clearly, we need to understand the basic components of networks, specifically the Internet.

## **OPEN SYSTEMS INTERCONNECT MODEL LAYERS AND STANDARDIZED PROTOCOLS.**

Amateur Radio equipment manufacturers haven't done a great job of standardizing things like connector types and pin definitions on gear except for the RF port. An Icom HM36 mike would work with my IC-706 if I buy or make an 8 pin circular connector to RJ8 adapter with the correct wiring order but it's not plug and play.

Engineers working with early computer networks understood that for networks to be universally deployed and interconnected, standards would be necessary for both physical things like connectors and cables and way that information (data) enters, moves through and leaves a network.

Many, many standards have been developed to ensure interoperability as well as provide for evolutionary improvements. The International Standards Organization (ISO) Open Systems Interconnect network Reference Model, the Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard for wireless networks and the TCP/IP architecture and protocol suite have specific relationships to Amateur Radio stations and communications.

Both 802.11 and TCP/IP are built on the OSI Reference Model of a vertical stack of defined layers with specific functions to reliably transfer data from one end point to another. Network savvy folks will immediately recall the Physical Layer, Data Link Layer, Network Layer and Transport Layer as the bottom four layers of the seven layer OSI Reference Model but may not have considered the operation of their station in relation to it.

A simplified picture sometimes used to explain the idea of the stack model is communications between two individuals speaking different languages. Each person represents an upper layer of his particular stack entity. A lower layer offers a translation service to commonly shared language and finally the lowest layer provides a physical connection between the two stacks (maybe a telephone line or the postal service). Information can then flow freely between the two individuals, moving down one stack, across to the other and up again.

The 802.11 standard provides a variety of functions that support the operation of 802.11-based wireless networks and specifies both layer one, the Physical Layer (PHY) and layer two, which is principally the Media Access Control (MAC) function, the principal part of the Data Link Layer.

The TCP/IP stack architecture places the Internet Protocol at the third or Network layer with Transport Control Protocol at the fourth or Transport layer. The fourth layer enables a 'conversation' between two 'individuals' on the network.

One extremely important function of the IP protocol is to provide a numbering scheme to the MAC layer, which uniquely identifies each and every entity on a network. The original numbering scheme, IPV4, consisted of 4 bytes of data with a format like 172.34.25.192 which provided for 256 x 256 x 256 x 256 or 4,294,967,296 separate physical devices. Unfortunately, 4 billion 'things' fell a bit short of what is now thought of as the Internet of Things and the ID scheme was extended to 6 bytes (IPV6) which provides for 281,474,976,710,656 'things'. That translates to about 40,000 IP address for each of the seven billion people currently in the world if my math is right.

If you have a DSL modem for your internet connection, or any network wireless gear, look for the MAC address on the model and serial number label. Depending upon the manufacturing date it will either be 8 hexadecimal numbers (IPV4) or 12 hexadecimal numbers (IPV6). For example: 5E323C88.

## **SO HOW DOES ALL THIS NETWORK STUFF RELATE TO HAM RADIO?**

The PHY or physical layer of, for example, a WIFI access point is the receiver, transmitter, antenna; everything needed to radiate and receive a signal over the air.

In Amateur Radio context, the PHY is the transceiver, power amp if used, antenna and feedline, mike and power supply; everything needed to transmit and receive a signal over the air. It doesn't matter whether the rig is a conventional analog design or a software defined digital design in which computer code performs all filtering, demodulation and modulation functions.

Standards governing Amateur Radio operation are established by the FCC with input predominantly from the ARRL and individuals through established rule making procedure. There are also FCC requirements for 802.11 wireless equipment developed more or less in parallel and with input from the 802.11 IEEE Standards groups; mostly computer industry and academic professionals.

The MAC in layer 2 of the WIFI access point, controls all of the functions of the PHY including selection of channel, modulation type and data rate, check for clear channel before transmitting and some error control functions.

**In the context of networking, the Amateur Radio Station control operator performs all of the functions of the Media Access Control and the higher network layers required to establish and maintain a contact with another Amateur Radio station and transfer whatever information is appropriate for the particular contact.**

**The parallel is even closer when you realize that the control operator, performing MAC and higher layer functions, also has a MAC address: an Amateur Radio call sign ! Our call signs may not conform to TCP/IP protocol standards but they do conform to a standard established by the FCC and ITU.**

Let's get back to N2FN's comment about EchoLink. EchoLink is a program which uses Voice Over Internet Protocol (VOIP), much like the popular SKYPE, to provide voice communications between two licensed Amateur Radio operators anywhere in the world with Internet access, even dialup.

But the program's additional capabilities include control of a radio (via an interface box like Rigblaster or ULI, W2REM's Ultimate Linking Interface). In simplex mode, your radio then allows others in range to communicate to someone at the other end of the EchoLink connection. Sysop mode is designed for repeater interface and permits access to the repeater from multiple remote EchoLink users.

I would agree with Cliff that ham to ham connection of EchoLink without interface to a radio at one end or the other is not ham radio, rather a way for two licensed hams anywhere in the world on the Internet to 'QSO' without access to a radio.

However, with connection either to a transceiver or a repeater, I think we can consider EchoLink as just another network based remote access link, not very different in end effect than repeaters linked over a dedicated radio channel. Except the range of the link is now worldwide.

Don't forget that protocols like Dstar included in a transceiver not only digitally encode voice for packet exchange but can also handle straight data packets. Dstar equipment is designed for easy interface to computer networks and Dstar repeaters provide the same extended range function to handhelds and mobiles that analog repeaters do.

Also, recall that we operated X.25 based packet networks before today's Internet became a reality.

## **SO, WHERE DOES THE DISCUSSION GO NOW?**

Pretty much wherever you want to take it.

My intent to this point was to demonstrate the close relationship between what one might call 'traditional Amateur Radio communication', an operator and his or her radio equipment in communications with another licensed Amateur somewhere and modern network communications specifically using the Internet and TCP/IP protocols.

Our traditional communications model has been greatly enhanced in the last few years with new digital modes providing, among other things, a variety of keyboard to keyboard communications protocols and amazing signal to noise enhancement techniques like the K1JT protocols.

In my view, Amateur Radio has much to offer anyone interested in the wireless communications aspect of today's Information Age and, in fact, in any network based comm systems.

In closing, here's a thought for a demonstration to school kids of Amateur Radio and Internet networking synergy:

Pick a school for a 'base' operation where a portable station will be set up for contact with the International Space Station, for example, Taconic Hills. Then, tie that radio via the Internet using EchoLink in sysop mode to allow other schools in Columbia County (keep the number to a manageable size) to share in the ISS contact. (end)





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# RVW Club participation

Julius Madey, K2KGJ

Amateur Radio and participation in the Rip Van Winkle Club

During the October 20th Club meeting, a discussion was held on building the active membership of the club; active in this case meaning participatory dues paying members who attend meetings and engages in club activities.

The relatively old average age of the Club members attending the meeting was noted (Pete, NX2X and Tom, N2NZD being probably the youngest).

There seemed to be two general themes in the discussion: (1) getting and sustaining more active participation in the Club and (2) attracting new blood into the hobby.

Suggestions addressing participation included more events such as the Hudson Lighthouse operation and possibly making those events standing and more 'formal' with outreach to the community. Radiosport participation and Fox Hunts were another possibility.

Pete, NX2X, and others seemed to feel that Scouting (both Boy Scouts and Girl Scouts) offered a strong opportunity for new participants in the hobby. The Boy Scouts have a radio merit badge (which can be augmented with a Morse Code interpreter strip) and the Club has successfully included at least one local Girl Scout troop in previous Tech classes. Pete noted that Jamboree On The Air this year was very active world wide.

A permanent club station was recommended as well as some sort of 'Go Box' that could be taken to a school or other venue. Also suggested was an ISS contact demo perhaps aligned with STEM curriculum in a local school.

Carl, WA2UJX, said he would contact ARRL for materials and suggestions for improving club participation and recruiting new members.

The club's previous Tech classes have been pretty successful in producing new licensees but that hasn't been reflected in participatory club membership.