

The Radio Hill Gazette

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From the Editor

Welcome to another edition of the Radio Hill Gazette.

With September comes the transition. Kids go back to school, the weather cools off and summer is pretty much over. We had pretty mild weather for the summer, but this is normally the time of year we can plan on milder temperatures to get done those outside projects we put off in the heat of summer. The clock is ticking if you have outside projects you want to finish before we are in the grip of Old Man Winter.

But nice weather is no reason not to be active on the radio! Have you been active, making contacts, chasing W1AW, exploring new modes or maybe just experiencing some unique propagation that may be new to you? Did you notice that a particular station was actually heard on backscatter? You are an Amateur Radio *Operator*, aren't you, not just a (SWL) listener?

Anthony
Editor, RHG



A look at some HT's

Rich
W9UTS

This is what Mel and I did with his Byrd watt meter and my three HT's.

The Byrd Watt meter had a 2 meter slug and was capable of measuring 50 Watts.

The HT's were as follows.

1. Baofeng 82L HT
2. Quansheng TG-UD-D104
3. WOUXUN KGUVD1-V104

All the batteries were fully charged.

All the HT's were set to 145.230 mhz.

A precision 50 ohm dummy load was used after the Byrd Watt meter.

Because the Watt meter was 50 Watt full scale I can only approximate the power output of the HT's.

The Baofeng measured slightly under 5 Watts.

The Quansheng measured close to 4.5 Watts.

The WOUXUN measured slightly under 4.5 Watts.

These measurements are not significant in any way because there is little difference between 4.5 and 5.0 Watt. There is a difference in price.

A new HAM's first rig

Arnie
K9AJK

I fondly remember my dad taking me to Allied to buy a kit. We built it together, and he tried to teach me how to solder. I still wish I still had the crystal set we built. Later, I went through the CB phase. It was fun, but not very useful. Life continued, as it does for all of us. So, here I am, retired with time to reflect on those moments.

I always had some interest in radio, but never followed through with pursuing it. I have used radios all my life and basically took them for granted. Finally, the spark grew into a flame. I started looking into what it took to get a HAM license. The Technician Class started to look pretty good. I could communicate over longer distances with repeaters and it wasn't the normal junk that I heard on CB.

In March, 2013, I went to a VEC session from SARC and left with a Technician Class FCC Amateur Radio License. Now that flame was a fire. I wanted to get on the air and purchased a Yaesu VX-8G handheld. 2M and 70CM were my new playground and the SARC repeater (K9IJK) was my new friend. I thought that I would never need to upgrade from there. Using the repeater led me to SARC members. They were knowledgeable, helpful and just plain nice folks. This led me to become a SARC member.

Participating in the Schaumburg Amateur Radio Club was enjoyable and horizon broadening. Soon, HF operations were calling me. So, with the help of other members, I became a General Class licensee in April, 2014.

I figured that now that I had the license, I had to use it. I now own a Yaesu FT-897D with a LDG AT-897 Plus tuner and a Deluxe Buddipole Long Version antenna. I chose this rig because I am in an antenna restricted area and wasn't ready to set up a permanent "shack".

I have made about 60 HF contacts. Many of these were in organized events: WAS, 13 Colonies, and the ARRL Centennial QSO Party. I am learning more about Amateur radio as I go. Recently, I became frustrated with some noise on the bands and upgraded my rig with a Collins 2300 Hz SSB filter. After installing it, I was initially a little disappointed. It didn't seem to cut down very much of the noise. However, I soon realized that it was quite helpful in pulling voice out of the background. It was a worthwhile investment and has contributed to making some difficult contacts.

I have made contacts from coast to coast and a couple of DX contacts. Now, I don't think I need to upgrade to Extra. Wait a minute, what's going on with those frequencies I can't use as a General? I'll have to look into that!

Making the first HF QSO

Matt
AC9IG

Last month I discussed the decision making process that I went through selecting an HF antenna for my new station. This month I continue to discuss my experiences getting on the air.

Now that the antenna has been installed, I was eager to get on the air. I made the final few antenna and power connections, pulled out a band plan and turned on the radio. I was definitely able to hear things on all four bands that this antenna was resonant on. The radio had a built-in tuner capable of handling 3:1 SWR, but I quickly learned that I was unable to tune the antenna on the 40M or 10M bands. This was not extremely disappointing for me, as my original plan was only for a 20M dipole. This band and the 15M band tuned without a problem.

I went back to the 20M band the next night with the intention of making a few contacts. I chose 20M based on the guidance of a few propagation forecasting web sites that all showed this band should be open. Having listened to the bands the previous evening I had at least gotten some familiarity with the radio controls and some of the typical practices for HF SSB contacts. This helped to ease some of my nerves knowing that a lot would be happening very quickly when I went to make a contact. I listened to the band for a while looking for someone calling CQ. This would have relieved some stress of trying to figure out an entire QSO all at once, but I didn't hear anyone.

I stopped the dial on what sounded like an unused frequency and listened for a few minutes. The I asked if the frequency is in use. There was no response. A lot of questions were running through my head at this point, very similar to what happened when I first keyed up a repeater a few months earlier on VHF. "Who will hear this?" "Am I interrupting another QSO that I can't hear?" "Will anyone respond?" And most importantly "What do I say?" The last one was the toughest to answer. On a repeater it's quite simple, simply give your call sign. The repeater's frequency is well known so it's likely that someone is listening. On HF, you're tuning through the band, so you need something a bit longer to give someone that hears you a moment get the frequency dialed in, catch your call sign, and if they have it, rotate their antenna in your direction.

I took a deep breath (which I eventually realized I always do after I key up the mike) and called "CQ CQ CQ. This is AC9IG Alpha Charlie Nine India Golf calling CQ CQ CQ Alpha Charlie Nine India Golf standing by." After a few rounds of this NN1G, Bob in New Hampshire responded to my call. Getting a response was a great feeling. I showed that a month or so of planning my station had come together quite well. I didn't immediately know he was in New Hampshire, but when I went to enter him into the logbook (at the time a spreadsheet) I took the effort to look up the call sign and fill out a few additional details. Seeing that this was approximately 800 miles made this an even cooler experience.

The distance involved was by far the most amazing part of all this. Up to this point, my experience with radio was with things like WiFi that on some days you can't even get a decent signal on the opposite side of the house, cell phones which have a range of a few miles and require a lot of infrastructure, and commercial broadcast stations which at best get a few hundred miles on the AM

band. I had read plenty about propagation studying for the license exams, so I knew these distances were possible. But actually making it happen brought all of these bits of knowledge from the test together.

That same night I got a few other east coast contacts including the W1AW/3 centennial station operating in Maryland at the time. I was also pleasantly surprised to hear a CQ from SV9CVY on the island of Crete. It took about 20 minutes, the first few of which I was just trying to hear his call sign, and the most of the rest learning the rhythm of the pileup. After that I managed to get a QSO with a 59 signal report. This was very exciting. I thought it would a few weeks before I made an overseas contact.

The orientation of my antenna is dictated by the space that I had available in the attic. Thus the main lobe of the dipole's radiation pattern points more southeasterly on the short path to Europe. A great circle plotted perpendicular to the antenna would take the signal through southern Africa so getting the station on Crete was something unexpected, especially on my first day operating.

Over the next month I continued to make contacts in Europe and the Middle East. I've also made plenty of contacts in the states as well. Two interesting contacts were just west of here in Freeport, IL and Bettendorf, IA. These occurred on 20M which means they typically would have been in the skip zone, but something in the ionosphere brought these stations in on a short hop. I haven't been able to contact any stations at this distance since that afternoon. At the time I didn't realize that this was an unusual occurrence, but next time I hear it I'll definitely make sure to try and work a few more contacts.

Looking at a plot of where I've made contacts, there's no detectable pattern yet of where the antenna pattern is. I've covered a good portion of the US concentrated mainly on the east coast. Into the Caribbean and several contacts in Mexico. I'm very eager to get some contacts into Asia and Africa to fill out the map.

I tried for Asia one evening after a contact that I made mentioned that he had heard some Japanese stations on a few frequencies that he passed on. I tried for a while to listen for them and was only able to hear others trying to make a contact.

In general, I have been very happy with the community that I've met on the air. There are plenty of people eager to talk about their station and equipment or to answer questions about amateur radio. One thing that I've been particularly in hearing about from contacts that I make is what got them started in amateur radio. There have been plenty of interesting stories.

Despite all these QSOs that I've been able to complete the antenna still needs some work. I got some help tuning the antenna for the 40M and 10M bands that up to this point I have been unable to transmit on due to high SWR. I'll discuss the tuning process as well as some of the features of the radio that I find helpful.

Matt, AC9IG

A page from the contest diary

Anthony Willard

AB9YC

This event is the North American QSO Party (NAQP) SSB mode summer edition. This contest runs two times a year in each of three modes: RTTY, CW and SSB. The summer sessions of CW and RTTY are already complete, and SSB is the final event for 2014.

I was checking my Worked All States (WAS) statistics for obvious gaps and would use this event to hopefully fill in some states on SSB. I planned a part-time effort. This would also be my first contest with a new pair of Yamaha CM500 headphones with boom mic – no more hand mic. I was hoping for 300 QSO's, which should be attainable based on my past performance.

As usual, I started out on 10M, hoping to lock in some easy multipliers before moving down the bands. As it was, I only managed a Canadian station as the band was pretty dead.

I moved down to 15M and it seemed only marginally better. But there should be more activity here and scanning around I did find a few stations, then settled in calling CQ... nothing. This would be a tough event if the high bands were so unfriendly.

I knew 20M would be a popular band as it would be open for the entire event, and with 15M and 10M being so dead, it was indeed the place to be, early on at least. The entire SSB portion of the band was jammed with stations. I slid up and down the band logging stations from all over. I tried calling CQ a few times, but with the high number of stations, finding a clear frequency was difficult. I spent most of my time calling CQ being surrounded by stations, I found it amazing that anyone found me at all. It seemed that I would answer a call, log the contact, but I couldn't be sure he was actually calling me and not some adjacent station. The timing seemed right, so I logged it. The QSB at times seemed pretty bad, sometimes dropping an entire suffix, often mid-exchange, so many repeats. Around 2100z the noise dropped noticeably, but so did the stations. Still there, but only the stronger ones, the ones I already had in the log.

This brings me to why I tend to avoid SSB on HF, my local noise during the day can be bad. For this event, my normal noise was a solid S5; throw in adjacent stations and my needle was always reading high. You could fit that amount of activity into a much smaller slice of the band if it were CW where narrow filters can be put to use. But, alas, it was SSB and it is what it is.

I kept at it, slowly adding contacts to my log. A bit of S&P, a few attempts to run, more S&P... and so went the afternoon. I took a break at 3 ½ hours in for some dinner with only 101 QSO's in the log. At this rate, my goal would be tough to reach. Time for some food.

After some social time with the XYL and some dinner, nearing 2300z I plunked down in the chair, donned the headphones and scanned 20M. Still busy. How about 40M? Activity, but not crowded. As darkness worked its way across North America, this band should only get better. I quickly found an open frequency and started calling CQ.

The replies started to come in at a steady rate, I was making some progress. The band still seemed good, if not underutilized, plenty of activity with low noise. I was adding contacts now at a strong clip. I had to move my running frequency as stations started to arrive on the band and crowd me. This was normal, and I quickly found a free space and went back to running.

Wow! The activity was really strong now, I was putting contacts in the log at a prodigious rate, with surges over 250/hr – it's a good thing I can talk fast, contacts back-to-back-to-back, no repeats, no stutters, next contact. THAT was fun. Sure, it didn't last but I was busy for 90 minutes running on 40M. I managed over 100 contacts on this band, as many as I had on the other bands combined – in half the time! No time to stop here, I kept the pace for another 90 minutes and doubled my contacts on this band – twice as many as all other bands combined. I tried to work on 80M, but it wasn't working, so back to 40M to close out my evening.

For this event, 40M was my workhorse band, production there was far better than all other bands put together. The noise was much better, and I was able to pull in states from all over. With the higher bands being very poor, 20M is where all those stations ended up, basically saturating that band to the point of being “overloaded”, and reducing effectiveness. In the end, I managed 44 states and 2 Canadian provinces, and beat my goal with 315 contacts. I did manage to score a few confirmations plugging some holes in my WAS chart, not as many as I had hoped, but every confirmation counts.

I checked my log, prepared my submission, and posted my entry to the contest sponsor's web portal. Whew! Done. I was tired, but I had fun. The activity on 40M made it worth it; working to bust a pileup is fun, but working my own pileup was a blast. I wouldn't have made my goal without the other bands, but activity was solid on 40M. The unofficial, early numbers put my score clearly in the middle of the field. I was on several teams for this event at various levels of competition; my immediate team did well, if only middle of the pack – not bad for part-time participants. The other team scores are still rolling in and it may be some time before any results are available; we have a chance at victory, and I was glad to do my part – a contest within a contest.

Until next time, 73.

AB9YC

Less is more

Anthony Willard

AB9YC

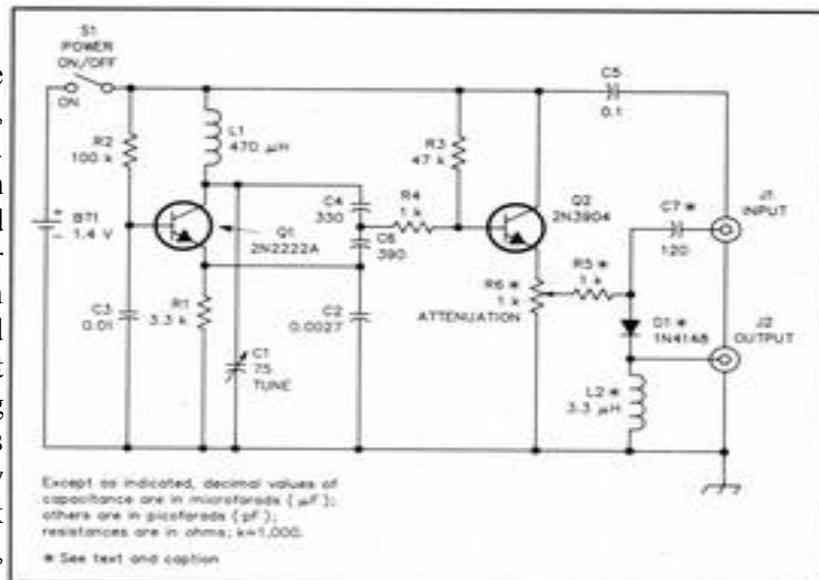
I've been involved in a few of the Fox Hunt activities and the one fact that seems constant is the capability to reduce the signal from the target transmitter to allow accurate determination of direction.

Enter the attenuator. This is a device that reduces the incoming signal below the original incoming signal strength. These are invaluable for getting accurate bearings to a transmitter. However, once you get close to the target, the receiver may begin to receive the signal through the case in addition to the antenna and attenuator. This makes direction almost impossible to determine.

Enter the offset attenuator. The offset attenuator reduces the incoming signal, but it also shifts the signal away from the exact frequency allowing the receiver to get the input only from the antenna connector. Now it is possible to determine the direction of the signal without interference.

There are plenty of commercial units available and several are on display at the Fox Hunts. There is a version that was built by our club some time in the past, before my time. I wanted one. Kent (W9KAO) provided the link to the resource the club used, and you can find it here <http://www.nerg.asn.au/foxhunt/mixerbox.htm>.

The circuit is presented from the article. It seemed simple enough, so I thought I'd give it a go. There are various boards that can be bought or even etched yourself. I didn't want to wait for a board in the mail or go through the effort to get my own board etched. So, I resorted to a direct building technique, dead-bug style. I scavenged up the parts and set to work constructing my variation. Honestly, it only took about 20 minutes to solder up, and took more time to put holes in the mint tin and assemble the components. But it does work, after a bit of tweaking and adjusting, thanks to Rob (N9MVO) for his insight. It turns out that my not-exact components produced a shift of more than 600 kHz, not 500 kHz as the article suggests. I'll accept that, it's close enough.





I won't bore you with construction details, but you can see the few parts assembled inside the ever-popular mint tin. You can see how I've laid it out, and even put a simple layout on the inside of the lid.



Here is the finished product, all labeled and ready for use. Bring on the next Fox Hunt!



SARC in the Park

Photos courtesy of Dave (K9KBM) and Arnie (K9AJK)



Illustration 2:
K9UD, K9QD, N9MVO,
N9NBH, W9DXR, W9RAP, N9
POL



Illustration 1: AB9YC,
K9QD



Illustration 3:
AC9GN, N9NBH



Illustration 5: N9POL



Illustration 4:
W9DXR, N9M
VO



Illustration 6:
AC9EM, KB9IIZ, K6KOK



Illustration 7: N9POL

The SARC in the Park (annual picnic) was a great time, the weather was humid, but not unbearable. There were many members who stopped by, and some brought stations, gear and projects. There were conversations galore, assembling, testing, learning, demonstrating and “philosophizing.” N9POL actually made a few contacts, too. A good time was had by all who attended, not to mention the donuts and pizza. These activities allow members to form relationships that extend beyond club meetings.

Club roster information request

Ladies and gentlemen,

We are still trying to get information for the club roster. The information will be published only in paper form to prevent creation of spam emails etc, but will be useful to you and other members of the club, when you and they could use help in learning something. The spreadsheet requests the following information. If you don't want to provide all, you don't have to. (Actually, I was just looking at the list below, and I see it does not include offspring. It is possible that they could also benefit from knowing others from within SARC, as well.)

The info you send will not be on Google groups if you send it only to him, and thus it won't be available to anyone else (except the NSA, and they already know all about you.)

Name, Call Sign, License Class, First year licensed, SARC Committee Positions (current), SARC Committee Positions (former), Ham Radio Interests, Spouse Name, Home Address: City, State, Zip Code, Email Address, Home Phone, Cell Phone, Work Phone, Employer, Occupation, Former occupation, Other Interests or Hobbies, Special Abilities

Please send your information to Jim at mccannj706@gmail.com. Let's make a Roster that can be really helpful.

73 de N9MVO,

Rob

Calendar and things to do

September

ARRL Centennial QSO Party	1/1 – 365 days, all 50 states, all bands, many modes
Board of directors meeting	3
Breakfast at Maxfields	6
Fox Hunt	6 (after breakfast)
3 rd Annual Dinner – Pilot Pete's	13
Club meeting	18
W9DXCC	19-20
EmComm Roundtable	20
WW II Reenactment	20

There are plenty of contests this month operating in many modes on various bands, so find one and listen in. Check out <http://www.hornucopia.com/contestcal/weeklycont.php> to see what's coming up.

Looking ahead

Christmas Party	January 15, 2015
Cruise	2016

VE Testing Results

Results for August 2, 2014
 Next Test September 6, 2014
 Park District CRC; Sr. Center;
 Sunshine Room.

CLASS	NUMBER TESTED	NEW LICENSE or UPGRADE
Technician	4	4
General	1	1
Extra	0	0
Total	5	5



New/Upgraded Licenses:

****Technician****

None

William B. Edmiston KD9BUA
 William S. Edmiston KD9BTZ

****General****

Joseph Overhuls KD9BTS
 Richard Kazumura KD0BTR

****Amateur Extra****

Bernard Calo KD9BMT

The SARC-sponsored VE exam sessions are held at 9:00 a.m. on the first Saturday of each month (unless it is a holiday or advised to the contrary by Schaumburg Park District) at

Schaumburg Community Rec Center (CRC)
505 N. Springinguth Road
Schaumburg, IL 60168-0251

The CRC is located at the S.E. corner of Springinguth and Bode Road, park in the North lot and enter through the North doors. Testing will be in the Sr. Sunshine Room, signs will be posted to guide the way to the room.

The fee for taking a VE exam is \$14.00.

According to the FCC, the test fee allows an examinee one attempt to pass or fail each of the three examination elements. In addition, the order in which the examination elements are taken is not restricted; they may be taken out of sequence.

As in the past, an identical fee will be assessed to any applicant who fails an exam and wants to retest at the same session. The only condition is that the same exam (identical set of questions) cannot be given to the Applicant, since all our exams are unique, this is not a problem at our sessions.

Tom Doyle K9MF
 W5YI-VEC CVE & Test Session Manager
 847-895-0174
 Email: K9MF@ARRL.NET

SARC Email Reflector

Want to know what's happening in the club? Join the club's email reflector on Google groups.

Point your web browser to: <http://groups.google.com/group/sarc-all>

Click on the Join this group link. You can use your current email account to sign up or create a free Gmail account.

You can elect to receive individual messages, a daily digest, or just read the messages on the Google Groups webpage.

Club Nets

Technical information net - Every Tuesday night at 7:30 pm. on the SARC Repeater 145.23 MHz.-600 kHz WITH 107.2 Hz PL. Bring your Q&A's

Thursday nights are the 2 meter general information net on the SARC Repeater 145.23 MHz.-600 kHz with 107.2 Hz PL. at 8:00 PM (except meeting nights.)

Club Meetings

Club meetings are held at the Schaumburg Recreation Center (CRC) on the southeast corner of Springinsguth and Bode roads. Our nets are held every Thursday (except Meeting nights) at 8pm on the K9IIK repeater; 145.23 MHz -600 kHz with 107.2 Hz PL.

Club Officers – 2014

President: Rob Glowacki N9MVO
[n9mvo <at> sbcglobal.net](mailto:n9mvo@sbglobal.net)
 847-981-1481

Vice Pres. Leo Ribordy N9NBH
[leoribordy <at> sbcglobal.net](mailto:leoribordy@sbglobal.net)
 847-697-7616

Secretary: Ray Parsons W9RAP

Treasurer: Albert Valdes K6K0K

Director: Steve Karson AC9EM (2016)

Director: Anthony Willard AB9YC (2016)

Director: Cliff Sowka K9QD (2014)

Director: Ray Parsons W9RAP (2014)

Director: Gary Bernstein N9VU (2015)

Club Committees

Programs	Open	RHG	Anthony Willard, AB9YC
Social Activities	Roger Ryan, W9RDR	Publicity	Open
Membership	Leo Ribordy, N9NBH	Net	Jim Brink, W9JFB
Education	Open	Technical Assistance	Ted Lester AB9SZ
Public Service	Rob Glowacki, N9MVO	Fund Raising	- Open -
Emergency Communications	Bob	Fox Hunt Coordinator	Steve Karson,
Langsfeld, WB9TZC			AC9EM
Special Events / Field Day	Dennis White,	Repeater	Rob Glowacki, N9MVO
KC9NZP			



Schaumburg Amateur Radio Club

Thursday Night 8:00 Net
S.A.R.C. Repeater
145.230 MHz- 600 kHz PL=107.2
442.275 MHz +5 MHz PL=114.8
Hz

Don't forget to check into the net! It will only take a minute and will let other club members know how you sound on the club repeater. The net features current club news, weekly NEWSLINE, news from other clubs and (of course) the swap-and-shop. Encourage your friends who are not yet members to check in with as well. Keep in mind that this is an open net and we encourage everyone to check in. See you Thursday at 8p.m.

The Schaumburg Amateur Radio Club, Inc. is organized as a general not-for-profit corporation in the State of Illinois to render public service whenever applicable to the needs of the

community and further various pursuits of amateur radio as a hobby. Meetings are generally held on the third Thursday of each month. Visitors are always welcome.

Please send all submissions for the Radio Hill Gazette to the following address:

Schaumburg Amateur Radio Club,
Inc.
790 Washington Blvd.
Hoffman Estates, IL 60169-3077

Or you can send by email to rhg@n9rjv.org.

We solicit letters, articles, news items, quizzes, advertisements, suggestions, and criticism – plus anything else you can think of, including ideas to improve the RHG! Please make submissions by the 20th of the month for inclusion in the next issue.

The editor reserves the right to edit submissions due to size or formatting limitations. S.A.R.C. shares newsletters with a number of other clubs. We scrutinize their publications very closely to make

sure that we do not infringe on any copyrights. As a matter of form, we try to acknowledge all prior sources.

Unless otherwise clearly identified as copyright protected, all material in the RHG may be used when due credit is given to the author and to SARC.

SARC is a recognized ARRL Special Services Organization.

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Visit the SARC Home Page at <http://n9rjv.org>

