



The Parasitic Emission

Volume 35, Number 4

Supporting Amateur Radio Activity in Cameron, Clearfield, Elk and Jefferson Counties

December 2009

1

On The Air

by Joe Shupienis, W3BC

IN THESE uncertain times, few of us have a cash surplus to spend on our favorite hobby. In order to continue enjoying amateur radio, we find ourselves having to "make do." I'm reminded of a popular slogan from the 1940s: "Use it up, wear it out, make it do or do without."



Recent experience showed me that I don't need a \$10,000 radio to rack up a respectable score in a contest. Just to prove a point, I ran the PA QSO Party with a G5RV and my trusty, 16-year old Icom IC-751A without any trouble at all. The radio worked like a charm through all 22 grueling hours of hard-core CQ-ing and band-hopping.

That rig was the "Pride of the Icom Fleet" from 1986-1993, and sold for \$1400 in 1993 dollars (\$2200 in 2009 dollars). I picked it up on Ebay three years ago for \$200. It'll probably outlive me.

The antenna is nothing expensive, either. Less than \$20 bought me enough #14 wire, and twinlead to build it. It's fed with a \$20 W2AU 1:1 balun and allows me to radiate a useable signal on every HF band. I used my old open-reel baitcasting rod to loft a 1-oz weight and 60# braided line over the tops of two trees, then pulled up \$10 worth of heavier rope to support the antenna. I made the insulators from a 69 cent piece of PVC pipe.

I know, it sounds like a kid's setup, and at a total price of under \$300 for the entire setup, almost any kid could afford it. But it keeps up with the big boys. In the PA QSO Party, I was frequently complimented on the signal strength and audio quality. In 22 hours of casual operating, it got me 121,000 points and 934 QSOs, in 65 counties and 42 states.

If it sounds like I'm bragging about how much fun I had, that's because I am bragging. I did have a lot of fun. I didn't spend a lot of money. What could be better than **cheap thrills?**

That's the point I'm trying to make. Even though amateur radio has undergone many changes in

the past 10 years, the radio you have is still very capable of providing you with endless hours of enjoyment. Make that "sheer radio bliss."

All you have to do is fire up your rig and follow another old motto, this one from the 1970s: "Turn on, tune in," and the results might blow your mind!

- • • • -

This month's PE was intended to be a "Big Holiday Issue" and I'm including material from all around the Quad County area. The *Basic Concepts* feature is taking a break from the amateur bands—don't worry, they'll be back soon—to discuss some helpful topics related to setting up your station.

For the homebrewer, or just about anybody who likes to work on their own gear, I've included an article which aims to help you find local electronic parts suppliers. Although the days of Clearfield Electronics are long gone, you'll be surprised at what you can still find, and where you can find it! This is a reprint of an article which *QST* rejected. Their loss is your gain.

Pete Carr, WB3BQO writes about the original 147.00 Ridgway repeater, and sends along some nice photos. It has been preserved in his

In this issue...

- *Club Connections – News from all over*
- *Basic Concepts: YOU are Chief Engineer (by W3BC)*
- *The Original Ridgway Repeater (by WW3O)*
- *QCARC History: Newsletter Awards (by WA3UFN)*
- *The Non-Radio Radio Store (by W3BC)*

basement and it still works after all these years!

Bryan, WA3UFN takes us on a visit to the archives with a surprising piece of QCARC and *Parasitic Emission* history.

There are a lot of operating activities on the air this month, and each of the local clubs is hosting a Christmas Dinner or party. So if you can't find anything better to do, there are plenty of excuses to play radio.

Season's greetings to all, I hope Santa brings you that new rig, and don't forget Straight Key Night!

I'll see you... *On The Air!*



Affiliated
Club



Club Connections

2



The Quad-County Amateur Radio Club

Serving Cameron, Clearfield, Elk and Jefferson Counties since 1975

The December meeting of the QCARC will be replaced by the Annual Christmas Dinner at Ethan's Café in Clearfield at 7:00 pm, Friday December 18th. Contact W3DWR for details.

Minutes of the QCARC Meeting

by Jeff Rowles, KA3FHV

THE NOVEMBER meeting was called to order on Friday, November 20 at 7:45 PM by Doug, W3DWR.

Minutes of last month's meeting were approved as read. The treasurer was absent, but a balance of \$822.68 was reported via a phone call to W3DWR earlier in the day.

Old Business: A motion to nominate Tom, W3KWT, to the Board of Directors was made by KA3FHV and seconded by SM7FYW. He will replace W3PRL. Since there were no other nominations, W3DWR directed the secretary to cast a unanimous ballot for the officers and board members.

President	W3DWR
Vice President	SM7FYW
Secretary	KA3FHV
Treasurer	N3PUQ

Board of Directors

K3EDD
K3JE
KB3QKR
N3IES
W3KWT

The annual club Christmas dinner is scheduled for Friday, December 18th at 7:00 PM at Ethan's Café.

New Business: There was no new business. A motion to adjourn was made by KA3FHV and seconded by W3KWT at 7:52 PM.

Attendance: KA3FHV, W3KWT, W3DWR, SM7FYW.

Behind the Gavel

by Doug Rowles, W3DWR

WE JUST ABOUT have 2009 kicked in the butt. There are only the Christmas dinner and a few Sunday night nets remaining. Dues are due. The membership form is available on the club web site, www.qcarc.com, and in the newsletter. Then we can look ahead to 2010.

Wait a minute! Has it been ten years since everyone was on pins and needles wondering what Y2K was going to do to computers, communications systems, air traffic controllers and man-made satellites circling the earth?

I couldn't go out and celebrate the new year because I was "on call" to report to the Clearfield State Police barracks in order to pass traffic on two meters.

When nothing happened in China and Australia, I figured we were safe from any major disruption. Let that be a lesson to the fear mongers who will come out of the woods at Y3K.

2010 will bring the usual yearly events: Field Day, breakfast in the boonies, a summer picnic, contests and hopefully our third swap meet. We were talking about JOTA this fall, but got the information too late to plan anything. Perhaps the new year will bring more new ideas for things to do.

We already have two new club members. That is a good start.

The officers and board members were elected at the November meeting. You can see the results in the minutes elsewhere in this newsletter.

73 and seasons greetings to near and far from W3DWR.

Shorts

If you are logged on to QRZ.COM when you look up a call sign, you will also see the beam heading to that station and the distance between the two stations.

- W3DWR

Club Connections



Punxsutawney Area Amateur Radio Club

*Serving Punxsutawney
and Jefferson County*

The November meeting of the PAARC will be held at the Presbyterian Church, Findley and Union St, Punxsutawney at 7:00 pm, Tuesday November 10. Free coffee and donuts will be served after the meeting.

Minutes of the PAARC Meeting

Steve Waltman, KB3FPN

THE NOVEMBER meeting of the Punxsutawney Area Amateur Radio Club was held at the Presbyterian Church in Punxsutawney on the 10th. The meeting was called to order by the President, Mike, N3HBH at 1900 hours.

Sham, W3QOS, our treasurer reported a balance in the checking account of \$412.57.57 American. This was approved on a motion by John, KB3OUG, with a second by Chet KB3KTM.

Steve KB3FPN, Secretary, read the minutes from the last meeting, October, which were approved and corrected. Joe, W3BC reported the website listed should be parasiticemissions.com. A motion was made by Doug, W3DWR, with a second by Don, KB3LES and the motion carried.

Old Business: Doug WA3LVU checked on the availability of the church basement for the Christmas Party on the 2nd Tuesday and found that either the 1st or the 15th would be open in December. It was suggested by Jim, AB3CT that the party/meeting be on the first Tuesday,

December 1st with the membership in agreement. The club will provide a meat tray and drinks and the members should bring a covered dish or dessert.

New Business: Nomination of officers for the coming year were held. Jim AB3CT made a motion to retain the officers for 2009 for 2010, with a second by Gene, KR3I. Nominations for club directors are as follows: John, KB3OUG, Jim, AB3CT, Doug, WA3LVU, DPAARCon, KB3LES, Clif, WB3GAD, and Doug, W3DWR. Don KB3LES made a motion that the nominations be closed till next month.

The checking has moved to Marion Center Bank in Big Run and the only thing that is required at this time is for Steve to sign the signature card there.

Our next Meeting will be December 1st, and the club breakfast, December 26th, the day after Christmas.

Steve, KB3FPN and Kevin, KA3YCB provided a demonstration of NBEMS, a digital messaging system, and we both want to thank Joe, W3BC, for lending a hand with the demonstration. This is something that is new to almost all of us, and we need much more practice to improve our skills.

Sutton Hamilton, W2ILH is leaving some amateur related items at the shack for the club and members.

Sham, W3QOS made a motion to adjourn the meeting, with a second by Jim, AB3CT. Motion carried.

Respectfully submitted Steve KB3FPN Secretary PAARC

Attending the meeting were 21 members and 1 guest: KB3ERA, Carole, N3HBH, Mike, KR3I, Gene, KB3HYT, Louise, W3HT, Don, K3RCW, Ron, KA3WSX, Jim, W3BC, Joe, W3QOS, Sham, KB3FPN, Steve, KB3OUG, John, KB3KTM, Chett, WB3GAD, Clif, WA3LVU, Doug, AB3CT, KB3LES, Don and wife, Joann, W3DWR, Doug, KA3FHV, KB3TOY, Tom, KA3YCB, Kevin, and W2ILH, Sutton.



Elk County Amateur Radio Association

Serving Elk and Cameron Counties

The December meeting of the ECARA will be held at the Elk County 911 Center, US 219 south of Ridgway on Sunday December 20 at 1:30 p.m. Free coffee and donuts will be served after the meeting.

Net Schedules

QCARC	1900 Sunday	147.315
Cld Co ARES	1945 Sunday	147.315 T 173.8
ECARA	2000 Sunday	147.000
	1930 Monday	147.390 T 173.8

Basic Concepts of Amateur Radio: YOU Are the Chief Engineer

by Joe Shupienis, W3BC

A good radio
engineer
starts and
ends with
safety.

BRADCAST STATIONS are designed to operate reliably to serve the public interest. Part of that reliability comes from following “best practices” in the engineering design of the transmitter and studio facilities. The rest comes from a program of scheduled maintenance in an effort to limit off-air time caused by failing equipment.

Your amateur radio station does not directly serve the public with scheduled programming, but it is nonetheless licensed by the FCC “in the public interest, convenience and necessity.” Within the Part 97 and other regulations which govern the Amateur Radio Service, are requirements that amateur radio equipment be installed safely and conform with “good engineering practice.”

At a broadcast station, the person responsible for ensuring the station is operating correctly is often called the “Chief Engineer.” He or she is usually a highly experienced broadcast engineer, and is familiar with all aspects of the transmitting, link and studio systems, as well as current FCC regulations.

At an amateur radio station, the amateur is the owner, operator and engineer. Unlike his broadcasting counterpart, the ham has the responsibilities of all three jobs. The question arises, how many hams are doing the job of Chief Engineer as well as they can?

Safety First

3 Killed by Ham Radio Antenna

Melville Braham, 55, his wife Anna, 49, and their 15-year-old son, Anthony, were trying to put up a new amateur radio antenna when it fell onto power lines. The accident happened at Melville’s mother’s house on Alaska Avenue.

“They were trying to put up an antenna in the backyard and my brother and mom and my dad were holding it down and, um, something happened and something went off and they got electrocuted and they are all laying on the ground,” daughter Melissa Braham told the 911 operator.

A good radio engineer starts and ends with safety. You can begin by taking a look around your shack.

Are there power cords and feedlines running all over the place like so much black spaghetti? Are you in danger of being buried under a pile of boatanchors? Is there exposed high voltage?

Look for piles of paper next to heat sources. Maybe the top of the amplifier isn’t such a good place for your old logbooks, QSL cards and cans of tuner cleaner. Is your shack a safe place for your pet or grandchild to wander around and “sniff” or “poke” things? If not, FIX IT!

If you have a workbench, is it safe? Do you have a fireproof soldering area? What about all that lead? And of course you use safety glasses, don’t you?

Moving outside, inspect the antenna system. Are there wires hanging so low that they could strangle an unwitting visitor? Or worse yet, get tangled around his feet?

If you have a tower, you must inspect it regularly. Are the guy wires secure? Fix any missing or broken ones immediately. Is the tower rusty? Does the thought of climbing it scare you? Is it big enough to hold all the antennas you have on it, or did you “cheap out?”



Look around your property boundaries. Are there new power lines that could come in contact with your antennas? (If there are, contact the electric utility company—they are the ones who put the wires there without asking about your antennas!)

From physical safety we move on to electrical safety. Do you have a “master switch” for all the equipment in your shack? It’s good to have one, easily-accessible switch that can kill all the power just in case something starts smoking or making loud, scary sounds. It comes in handy during thunderstorm season, too.

Speaking of thunderstorms, do you disconnect your antennas when you’re not using your equipment? You should. Unfortunately, it’s not that easy to do.

As a final precaution, an all-purpose fire extinguisher can save the day. Mount it where it will be visible and can be easily accessed, usually by the doorway to the shack near the light switch. NFPA recommends the top of the extinguisher should be less than 5 feet above the floor, and the

bottom at least 4 inches above the floor. Due to the wide variety of flammable substances found in the typical hamshack, it should be a "Class A-B-C" extinguisher. (Extinguishers are designed for different types of fires. A=paper, B=Oils, C=Electrical)

From the Ground Up

Many of the problems you might encounter when trying to put out a good RF signal can be traced to improper grounding. Most consumer equipment uses the standard IEC three-prong receptacles and plugs. This system, when properly installed, can provide a "safety ground" to prevent accidental shock, and also provides a modicum of interference protection.

The electrical ground is not adequate for RF transmitters, however. In fact, reliance on the electrical equipment ground can result in hum on your audio signal, and severe RF interference to your entire house. It can even cause a fire!

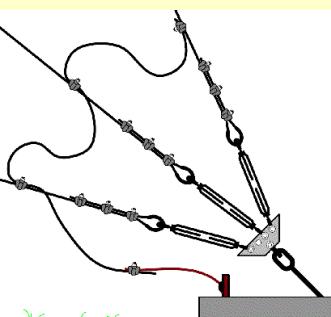
The best place for your station ground is at the point where the antenna feedlines enter your house. At a minimum, you should install a 4-foot copper ground rod about 1 foot from the foundation of your house at that point. An 8-foot ground rod is better. Each coaxial feedline should be bonded to this ground rod before entering the house.

A large diameter (#12 or larger) solid copper ground wire should be attached directly to the ground rod and run to your equipment. Every piece of equipment should be attached to this wire. Many hams report good success with grounding buses—a length of metal bar with holes drilled for wires, and setscrews to hold those wires in place.



The last word on grounding is at the tower. The best practices are to bond each leg of the tower to its own ground rod, and bond all the ground rods together. At each guy anchor point, install a

ground rod and run a single, large-diameter, solid copper wire to all the guy wires, just before the comb or common point. This will help prevent the current of a large lightning strike from cracking the concrete around the guy anchor. (The ground rod should be at least a yard away from—not in—the guy anchor concrete.)



Wiring Up the Wireless

From the time I first started in radio, I couldn't figure out why they called it "wireless." I have yet to see a radio station that wasn't crammed full of all kinds of wires! Part of good engineering practice is to make sure that all the wiring is safe, efficient and easily accessible.

Whether you decide to start from scratch and install new power wiring (with that master switch we talked about), or just rearrange what you have to reduce the "spaghetti factor," it's important to know how much electricity your equipment requires. Spend some time with the manuals, and add up the amps.

You might be surprised to find that for years, you've been doing the electrical equivalent of trying to put 10 pounds of "stuff" in a 5-pound sack. If this is the case, the next radio you add might require that fire extinguisher we talked about!



An important word about GFIs (Ground Fault Interruptors): A relatively recent innovation in household wiring is the GFI. It continuously monitors "leakage" current, and if it senses that some current is finding a path to ground outside of the electrical wiring, it immediately disconnects the power to the device. This can prevent electrocution when you use the hair dryer in the shower, but it can also false trigger on a radio connected to the station ground.

The best practice is not to use GFIs for any equipment connected to the station ground system, and to use them for all other electrical equipment that is not connected to the radios, like lights, clocks, computers, TVs, etc.

If you are rewiring, consider putting in a "changeover" switch to put the shack on an emergency power source, even if you don't have one yet. The price of generators is coming down, and a 3 kW gasoline set can be found for under \$200 at many discount stores.

Every year, Santa Claus delivers thousands of shiny new radios to happy hams around the world. In practical terms, this means that no hamshack stays the same, year after year. Therefore, it is good planning to provide easy access when the time comes to swap out a rig.

While you're down on your knees under the desk, rummaging around with the wires, it would be a

The best place for your station ground is at the point where the antenna feedlines enter your house.

Our newsletter was judged as "EXCELLENT". What a great event for the club: national recognition of the newsletter!

good time to put a label on each one. That will make it easier to figure out what that plug you accidentally pulled out goes to when the rigs all stop working just as you're ready to ragchew with Uncle Floyd and Aunt Mildred in Piscataway.

Don't forget about all the equipment that runs from 12 volts. A lot of us use one big power supply with wires to various rigs all crammed into the binding posts. It's very easy for one or more of these wires to come loose, and it can be a real nightmare to squeeze them all back together again.

There's a better way. [Anderson PowerPoles®](#) have become the de facto standard among ARES and RACES organizations. They are relatively inexpensive, and can provide a universal, high-quality power connection for just about any 12-volt equipment.



If you couple your big power supply into a [RigRunner™](#) PowerPole Strip, or build your own, you will have a convenient, safe, and useful 12-volt rig power solution. Wire in a switch or automatic relay to switch from the power supply to a deep-cycle 12-volt battery and your 12-volt equipment will all be ready for any power-out emergency!

Remember that fuses and circuit breakers are your last line of defense against fires caused by overloads—both accidental and those caused by trying to use too many devices on too small a circuit. It's a well-known fact that an overload can get your ass in a lot of trouble!



To be continued...

QCARC History: The Parasitic Emission by Bryan Simanic, WA3UFN

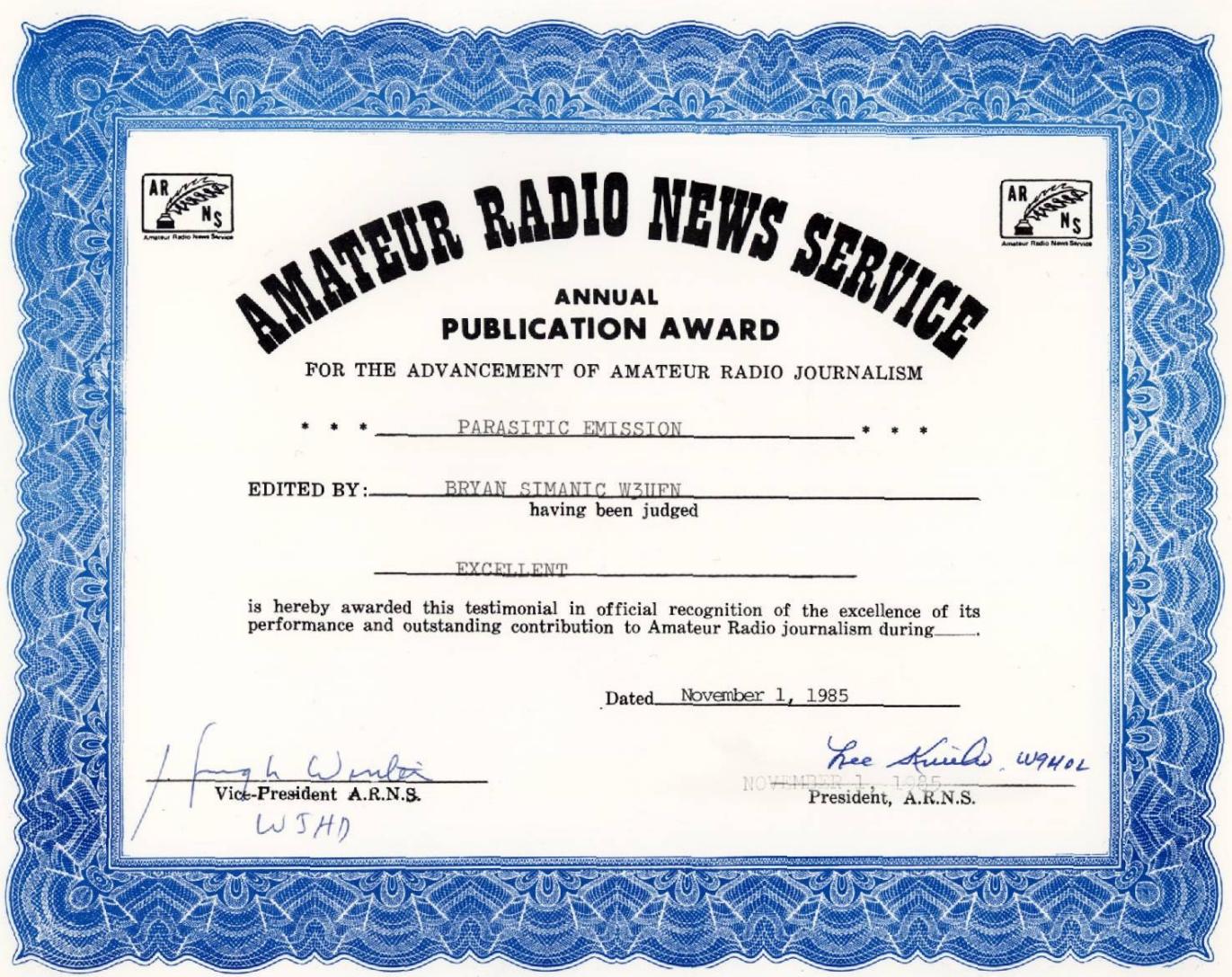
Often times it is a task to put out a newsletter. Some may call it a labor of love but is it worth it? I believe that it is worth the time and energy to compile the information to eventually get that information into the hands of the ham club's members in the form of a newsletter. Consider that not everyone can make the meeting; What better way can they find out what took place at the meeting than the newsletter? When there is an event such as a special program, what better way to get at least some of the information, to its members and to other clubs about what your club is doing? The newsletter. What if, well you name it, what better way to keep the club members up to date than a newsletter? Considering all of that, it seems to me that a newsletter is a necessary part of any club/organization.

You may ask, how do I know? Back a "few years" I was the editor for the Parasitic Emission. We had what we considered a respectable newsletter that was mailed to the members monthly. Those "few years" ago was 1985. Back then we did not have the publishing technology that we have today. We were often concerned about compatibility issues with the articles that were submitted via electronic mailbox drops, whereas today we can just email them.

Our current software typically has filters to accept what ever format the article is in and convert it into the appropriate form the editor is using. Boy is that a sweet thing! Inserting pictures was not as seamless as today either and they were just black and white. Color monitors were not all that common and color printers were just a dream, today they are common place. Then again today we don't even have to worry about delivering the newsletter via hard-copy, we can just email them. What a savings emailing is since printing and mailing the newsletter was the major expense the club had to contend with and it still is.

To reassure ourselves that the *Parasitic Emission* was a respectable newsletter the club decided to enter into a newsletter contest sponsored by the Amateur Radio News Service. We felt that this would be the acid test to see how the newsletter, that we took pride in, compared to others. We were pleasantly surprised, better stated - elated - when the certificate showed up from Amateur Radio News Service that our newsletter was judged as "EXCELLENT". What a great event for the club, national recognition of the newsletter!

Remember that a newsletter needs your input to



make it an important resource for the club. Even though the *Amateur Radio News Service* no longer exists to qualify the newsletter, it does not mean that putting a great newsletter is not worth the effort. The effort is needed and should be encouraged. That need comes from the fact that everyone cannot attend every club function in order to be aware of what is happening. That encouragement comes from the members who read the newsletter and shows the editor that members are interested in reading an interesting, educational and informative publication. So sit down at that keyboard and get an article together once in a while.

Shorts

If you have photos or stories of interest to hams in our area, please share them with us. Send them to:

submit@parasiticemission.com

If you have questions or comments for the editor, please send them to:

W3BC@parasiticemission.com

Letters to the Editor

As before, very well done. It must take a good deal of your spare time to prepare this newsletter and I appreciate being on the list of recipients.

Once again thank you! - K3LIX

.....
Thanks for the newsletter !

I enjoyed it very much and I learned a lot from it.

The 40 meter section, I read twice and took notes into my spreadsheet for band plans.

The graphic color and layout made it easy and enjoyable to read.

Keep up the good work, JOE!

Best regards,

John Buttner, KB30UG

The 40 meter section, I read twice and took notes into my spreadsheet for band plans.

The Parasitic Emission
December 2009

Remembering the First Ridgway Repeater

by Pete Carr, WW3O

We ran split antennas then because we couldn't afford a duplexer.

Recently some of us were talking about the beginnings of the Ridgway Club and also the early days of the Quad County ARC when it met in DuBois. You may remember my attending the DuBois club meeting to discuss a working relationship between our groups when we were starting to assemble stuff for the 147.00 machine.

Ed Zettle, W3LQA (ex WA3AMJ) and I are the remaining people from that Ridgway group. He soldered up the transmitter and power supply

while I built the RX, COR and installed the whole thing half way up the 500' cable TV tower. We ran split antennas then because we couldn't afford a duplexer.

The transmitter and receiver were VHF Engineering kits and the remains of the repeater are in my basement and still work. Ed lives in Kane now and has lost a lower leg to health problems but still checks into the Sunday evening VHF/UHF nets.

These photos will sure bring back memories to Ed and will educate the rest of the gang on what it was like 30+ years ago.

It's amazing how other people keep getting older when you and I haven't changed a bit!

The "Non-Radio" Radio Store by Joe Shupienis, W3BC

How many stores in your neighborhood sell ham radio supplies? The answer may surprise you. Even though most of us don't live near a store that is dedicated to selling amateur radio equipment, you most likely live only a short distance from stores that sell materials that you can use to further your hobby.

Granted, you can't just walk in and buy a new tribander or transceiver, but you can find a wide assortment of tools, hardware and materials that will help you use that tribander and transceiver effectively.

Antenna parts and supplies

I know of one ham who refers to his local building supply center as "my favorite antenna store." He is, of course, referring to the wide selection of PVC pipe, wire and metal parts available there. His [website](#) features many of his antenna designs, all made from common building materials.

Building my own antennas has always been a favorite activity of mine, and after a recent visit to [Home Depot](#), I came home with everything I needed to build a 6dB 2-meter vertical antenna. I use it for local rag chewing on simplex, and to reach repeaters as far as 80 miles away. It has survived ½ inch thick ice, 60 mph winds, and below zero temperatures. My total cost for the entire antenna was under \$20.

Whether it's time to string up a new dipole or a longwire, the home supply center has all the wire you'll need. You can use PVC pipe fittings as end insulators, and the wide selection of ropes permits safe and secure mooring of any size antenna. Most stores stock TV antennas, masts and rotors,



and some even stock tower sections and guy wires. Don't forget ground rods and large gauge ground wire for heavy-duty lightning protection.

Coaxial cable sold at the home centers is 75-ohm RG-6 designed for CATV use, which might not be suitable for your purposes. 50-ohm coax can be found at the local [Radio Shack](#) store – at least for the time being. An alternative source for reasonably good quality 50-ohm coax is a CB store or a truck stop. They also carry desk and hand microphones. Just try not to get one with a "roger beep."

Small parts and hardware



For your next homebrew project, the "non-radio radio store" carries every size and type of machine screw, washer, nut and bolt you will need, in brass, zinc-plated, stainless and even nylon. You will find aluminum and steel sheet metal for chassis construction, along with painted and finished sheet

metal to build cases. There's even perforated sheet metal ("cane metal") with a variety of perforation patterns to help with case ventilation.

Most amateur radio equipment uses fuses, and the local [Lowes](#) store stocks AGC fuses with all the common values from $\frac{1}{2}$ to 35 amps, and MDL "Slo-Blo™" fuses in common values from $\frac{1}{2}$ to 20 amps. They also have a wide variety of other fuses and circuit breakers in stock.



Many ham radio construction projects use small electrical parts, and you can find a generous supply of terminal strips, barrier strips, chassis-mount switches, alligator clips, hook-up wire, wire-ties, and cable clamps, along with various sizes, shapes, types and colors of plastic electrical tape. Wiring identification tags, wire looms, and wire organizers can add that finishing touch to your amateur installation.

If you're building a big amplifier, you can use some

heating duct parts, and a little imagination can help you improve the cooling design for very little cost. Flexible duct pipes can be used to direct the heat from your rig away from the shack, leading to a more comfortable operating environment.

Home sweet home

Speaking of the shack, your local home improvement store stocks many items for improving your favorite part of your home. Aside from the

obvious, like paint, drywall, flooring, ceiling tile, lights and wallpaper, there are many items that can be used to make operating tables and workbenches



inexpensively. For example, a door supported on carpenter's horses has been used in thousands of hamshacks for decades as the main operating desk, or as a workbench. Today, you can find a set of legs specifically designed for making that improvised table. Of course, you can also buy workbenches already configured with many drawers, shelves and other amenities.

Visit the flooring department to find ceramic floor tiles, perfect for creating a safe and attractive soldering area at a cost of mere pennies. And just down the aisle, you can also find rosin core electrical solder, along with soldering irons and miniature, gas-fired soldering torches.

Tools

Before heading to the cash register, be sure to browse the tool department. I don't need to tell you that whatever tools you need, you'll find at least three varieties of each. A word of caution is in order: If you don't need a specific tool today, resist the temptation to buy it anyway. They'll still have that item when you do need it.

Many [Sears](#) stores stock some dandy portable multimeters. One reasonably priced model measures the usual voltages, currents and resistances, but also has settings to test diodes and transistors, measure



capacitance, and even includes a frequency counter for use up to 10 MHz!

Your local home center probably has a tool rental department. Renting a trenching tool for a couple days is an easy, inexpensive way to bury feedlines and radials for those big antenna projects. A powered tree-pruning tool is a safe and effective way to remove branches that are in the way of



your antenna. Remember: if you're going to use power tools, don't forget to pick up a hard hat and safety glasses while you're at the store.

Emergency preparedness

Whether preparing for emergencies, Field Day, VHF hilltopping or for DX-peditions, the home improvement stores all carry emergency power generators.

Outdoor cooking grills can be very handy when food supplies are far from your operating location. Some home outlets have a good selection of tents and shelters as well.

Often the sporting goods store down the street is worth a visit, and has other worthwhile "ham" gear, including raincoats, boots, backpacks, compasses, GPS receivers, slingshots, fishing line and sinkers. My favorite antenna installation tool is an open-reel baitcasting rod with brightly-colored, 50 lb. braided line and a couple 1-ounce weights. For once, I can sail my line over a tree



and be happy about it!

But wait—There's more!

Your local music store ("guitar shop") may have a "pro audio" department. You can find high-quality, shielded audio cables that have very good RF immunity. Professional studio microphones and professional headphones are offered for sale at every price range from low to high to extreme.

Microphone booms and stands of all shapes and sizes are available as well. Most of these stores carry relay racks in many sizes and styles along with all kinds of rack hardware from screws to blank plates.



If you can design a full-color QSL card on your computer, and save it as a bitmap or JPEG file, your local one-hour photo processor can print them onto photo paper for about 20 cents each. That may seem like a lot, but if you only need 100 your cost is \$20, where printing shops may have a minimum order of 2000 cards.

Just the other evening, I had an interesting QSO with a fellow who uses a \$15 electric skillet as a surface-mount soldering station for his

construction projects. The rig he was using was built with that technique, and it sounded just fine!

It may be a sad fact that in the 21st century, you're no longer able to walk into the corner radio store and find everything you need to build a project, assemble a station and get on the air. However, by using a little ingenuity and thinking "outside the

box" you can and will find a large assortment of ham radio supplies at affordable prices in convenient, nearby stores, and still be able to experience that magical ride back home to put your newly purchased items on the air.

December 2009

Regional Amateur Radio Activities

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29 12:00am» CQWW CW (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	30 7:30pm» Punxsutawney ARC 2 Meter Net	01 7:00pm» Punxsutawney Area ARC Christmas Party	02	03	04 5:00pm» ARRL 160 m	05 12:00am» ARRL 160 m (cont.)
06 12:00am» ARRL 160 m (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	07 Parasitic Emission Submission Deadline 7:30pm» Punxsutawney ARC 2 Meter Net	08	09	10	11 7:00pm» ARRL 10 m	12 12:00am» ARRL 10 m (cont.) 10:00am» QCARC Breakfast
13 12:00am» ARRL 10 m (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	14 7:30pm» Punxsutawney ARC 2 Meter Net	15	16	17	18 7:00pm» QCARC Christmas Dinner	19
20 1:30pm» Elk County ARA Meeting 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	21 7:30pm» Punxsutawney ARC 2 Meter Net	22	23	24	25 Christmas Day	26 10:00am» Stew Perry Top Band Challenge
27 12:00am» Stew Perry Top Band Challenge (cont.) 7:00pm» QCARC 2-meter FM Net 7:45pm» Clearfield County ARES Net 8:00pm» Elk Co ARA Net	28 Parasitic Emission Submission Deadline 7:30pm» Punxsutawney ARC 2 Meter Net	29	30	31 7:00pm» ARRL Straight Key Night	01 12:00am» ARRL Straight Key Night (cont.) New Year's Day	02 1:00pm» ARRL RTTY Roundup

SUBMISSION DEADLINE IS THE LAST MONDAY OF THE PRECEDING MONTH.
submit@parasiticemission.com

Visit www.parasiticemission.com for back issues, current issues and more. The current online interactive version of this calendar, which contains events in upcoming months may be accessed at calendar.parasiticemission.com. You may use that calendar to enter amateur radio events of interest to local amateurs which are intended for publication, subject to review and approval.

The Parasitic Emission is published monthly for and distributed electronically (where possible) to all Radio Amateurs residing in the area served by the Quad-County Amateur Radio Club since 1975. This electronic edition is provided free of charge by email, and may also be downloaded from www.parasiticemission.com

All original content is the property of its authors. Their contributions are gratefully acknowledged.

The design, format, and presentation of this publication, and all material not attributed to other authors

Copyright © 2009
Joe Shupienis, W3BC
All Rights Reserved

Reproduction or republication by any means, in whole or in part, is prohibited without prior written permission and attribution of the Author(s).