Ham Radio Rocks!

The Mt. Vernon Amateur Radio Club

March, 2011 Newsletter

Meetings are held the 2nd Monday of each Month at 7:00 P.M. at the Knox County Chapter of the American Red Cross, 300 N. Mulberry Street, Mt. Vernon, Ohio

Local Ham Community

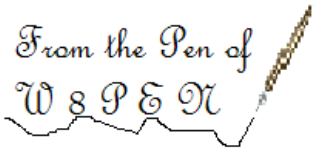
K8EEN Repeater: 146.790 Mhz (-600 Khz With PL of 71.9 Hz)
KD8EVR Repeater: 442.100 Mhz (+5Mhz With PL of 71.9 Hz)

Sunday Night ARES Net at 9:00 P.M. on The K8EEN Repeater
Wednesday Night Social Net at 9:00 P.M. on the KD8EVR Repeater

March Meeting At Allison's Finer Diner

The March meeting of the Mt. Vernon Amateur Radio Club will be at a special time of 6:00 PM at Allison's Finer Diner.

This meeting is our unofficial make up Christmas dinner which was canceled due to weather last December.



Monthly Breakfast:
For the month of March only, the Club breakfast will start at 8:00 AM. This change is to allow our VE testing team to enjoy the breakfast before the Saturday test session begins at 10:00 AM.

VE testing:
Testing will be for all class licenses and will be Saturday, March 12, 2011 starting at 10:00. Testing location will be the Training Center at the Knox County American Red Cross, 300 N. Mulberry Street, Mt. Vernon, Ohio. Walk ins are welcome or you can register by contacting Mike McCardel, KC8YLD: kc8yld@arrl.net . Our current students in the Technician course will be tested during this session.

Weather Spotters:
The annual Weather spotter training will be March 28, 2011 at the Memorial building beginning at 6:30 PM. All hams are encouraged to attend. In particular, those that have not attended a training session in the last three years need to be recertified by attending this training.

Read New reminders on the right >>>>>>>>>>>>

***The next meeting of the Mt. Vernon Amateur Radio Club will be Monday, March 14, 2011 at 6:00 P.M. This will be our Christmas "Make Up" dinner / meeting at Allison's Finer Diner, 11587 Upper Gilchrist Road,* Mt. Vernon, Ohio.**

A VE Test Session is scheduled for Saturday, March 12, 2011 at 10:00 AM. in the Training Center of the Knox County American Red Cross, 300 N. Mulberry St. Mt. Vernon, Ohio. Testing will be done for all license classes. To register contact Mike McCardel, KC8YLD, kc8yld@arrl.net . Walk ins are welcome.

"What a Disaster" Boy Scout Spring Camporee April 15 - 17, 2011. Local hams needed Saturday April 16. Contact Jon Penko, KD8LFI: jpenko@columbus.rr.com

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Weather Spotter Training to be held March 28, 2011 at the Memorial Building, 117 E. High St., Mt. Vernon, Ohio. Starts at 6:30PM. Sponsored by the ARES and Knox County EMA.

Please remember to check into the long running Sunday Night ARES net at 9:00 P.M. on the K8EEN 2-meter Repeater.

Every Wednesday at 5:00 PM, MVARC club members meet at Wendy's, 522 South Main Street, Mt. Vernon, Ohio. Dinner Coordinator Dick Huggins, N8RDH, reports good turnouts for this event. Come share dinner with friends, or make new friends, by attending one or all of these events.

Join MVARC club members every second Saturday of the month for breakfast. Breakfast Coordinator Arlin Bradford, KD8EVR, reports good turnouts for this event.

****The next Breakfast will be March 12, 2011 8:00 PM at Allison's Finer Diner, 11587 Upper Gilchrist Road,* Mt. Vernon, Ohio*****

KD8HSA Wins Go-Box Contest

By Mark Bisenius, AC8FV

Congratulations to Tom Evans, KD8HSA, for winning the 2011 MVARC Go-Box Contest!

Tom Evans, KD8HSA

I thought Tom could be a serious threat when I saw him set up a 20ft. fiberglass VHF/UHF mast in the bed of his truck, for a field station during our picnic meeting last October. But I knew we were really in trouble when he asked me the day before: "Well, how many Go-Boxes am I allowed to enter?"

Sure enough, he arrived 30 minutes early for the meeting, stashed various "boxes" under the table, and grabbed a cup of coffee. First, he had a leather carry-on with his handheld, headset, Radiograms, pens, paper, manuals, ARES card, FCC license, safety vest, etc. for quick deployment.

Then a 2nd stage with an 897D, for 6m, 2m, 440, HF and NVIS capabilities. And an 8900R for use as a cross-band repeater in the field. With a 30A AC power supply to provide plenty of shore power, and a 28Ah deep-cycle aviation battery for operating off the grid. And all kinds of antennas. Whips, mag-mounts, tri-band mag-mount whips--you name it.

The 3rd stage was full of cables, connectors, dipoles, antenna masts, tools, repair kits, meters, parts--everything. Including a Weller soldering iron with a temperature-controlled tip.

Our ARES EC, Ruben, KB2SAI, was impressed that Tom was well-prepared for message handling, complete with Radiograms and manuals.

Tom has only been a Ham since 2008, but with a background in general aviation avionics, he quickly became one of our most knowledgeable and skilled operators. He threw together his Go-Box in half an hour.

A few months ago we were all talking about EmComm equipment, and Tom said: "You know, the operator is as important as the equipment." I see now what he meant by that.

The Mt. Vernon Amateur Radio Club

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Members are encouraged to send articles pertaining to Amateur Radio, with an emphasis on local activity, equipment reviews, and personal experiences to the Newsletter Editor. Articles are due on the Sunday before the first Monday of the month.

Newsletter Editor: **Don Russell, W8PEN**
w8pen@arrl.net
Phone: 740-397-0249

I think that's why he got the votes. Everyone knew he wasn't bluffing. He has all the equipment, and all the tools. And he knows how to use them.

He always carry's his handheld, like all ARES members should. And he always uses a headset or earpiece during drills to reduce background noise, and to free up his hands for message handling and other tasks.

There were a lot of great ideas from everyone in the Contest. Every operator could easily qualify for the Go-Box Contest at the Cleveland Hamfest in September:
http://cms.ohioares10.org/go-box-contest-demonstration/

Needless to say, Tom didn't need the cheapie soldering pen as a prize. And he just bought more Anderson Powerpoles at the Mansfield Hamfest to put on all his connections with his top-of-the-line ratcheting crimper, so he doesn't need any more of those to be ARES compliant.

So, it'll be the free breakfast at Allison's. I just hope he doesn't see the Steak & Lobster breakfast on the new menu!

Treasurer's Report

Mar 1, 2011
for Feb 1 to Feb 28, 2011

Balance on 2-1-11:	$ 2611.48
Income:	
Dues:	$ 42.00
Donations:	$ 20.00
50-50:	$ 10.00
Interest:	$ .63
Expenses:	
none	
Balance on 2-28-11:	$ 2684.11
Designated Funds:	
Year 2005 Repeater Fund:	$ 384.94
Field Day Fund:	$ 58.25
Communication Vehicle Fund:	$ 540.18

Barry Butz N8PPF

RADIO DETECTIVE

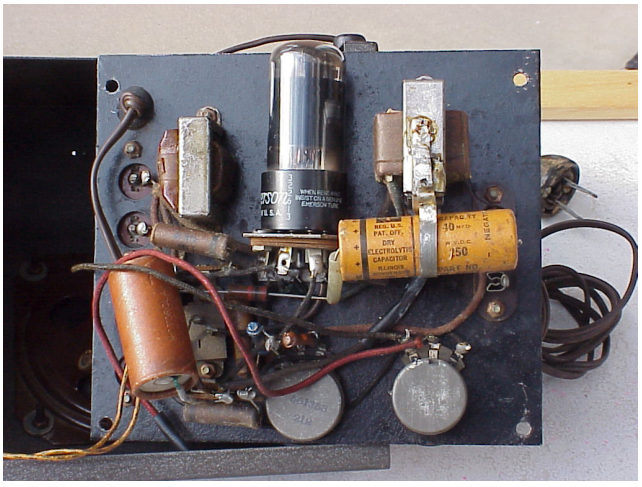
By Barry Butz, N8PPF

You have seen "History Detectives" on TV. This is a story of the Radio Detective (me). If I had been working for PBS I would have been able to travel to Boston and Chicago for my investigation. But being a free-lancer I had to settle for my kitchen table and the internet.

Don Bunner had given Don Russell an old code practice oscillator to see if he could make it work. W8PEN didn't get around to it so he gave it to me to see if I could make it work. If you're impatient to know if I was successful, the answer is "no". But the detective work had just begun.

The device has a curious design and looks rather homemade. On the front is the speaker and a cw key sticking out. The controls and terminals are on the back.

Inside is the telegraph key, an unusual looking speaker, and a single tube circuit of dead-bug construction.



The tube is a 117N7GT. The GT means glass tube; the 117 means the filament is powered with 117 volts! I've never before run across a tube that uses full line voltage but there it was in my RCA tube

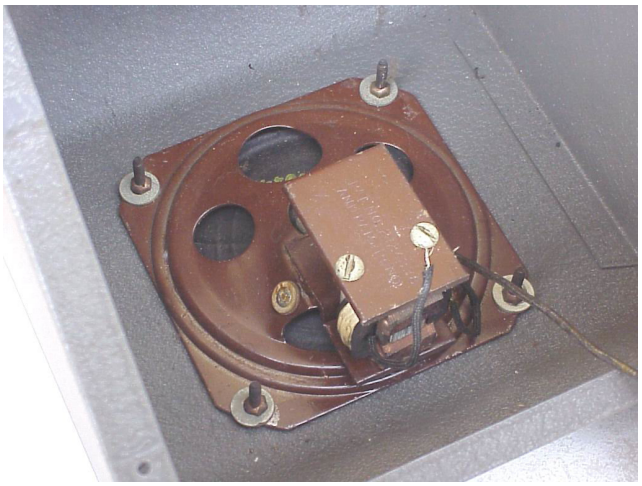
manual. There are two separate sections: a rectifier and an amplifier. The filament has no continuity so that is reason #1 why the oscillator doesn't. I didn't go any further with troubleshooting but there is every possibility that the old capacitors are also faulty.

But what is the history of this relic? The only clue to start with is the nameplate and a patent number on the speaker.

Searching for T R McElroy turns up some interesting information. He worked for Western Union and RCA as a telegrapher. In 1939 he won a code-sending competition with a record speed of 77 wpm, hence the "World's Champion Radio Telegrapher" phrase on the nameplate. Sources differ on whether the record still stands but it did for at least 60 years. In 1934 he started his own business in Boston making keys. The trademark MAC was his nickname. This oscillator was apparently made in the early 1940s by a partner company in Chicago named Radio Telegraph Apparatus, also known as Telegraph Apparatus Company.

The key inside is a special version of one of Mac's standard keys. The end of the base has been cut off to allow the lever to extend out the front of the case.

The speaker is also interesting. Instead of the coil being part of the cone, it is alongside and linked to the cone by an arm. It was supposed to be an improvement over previous designs but apparently wasn't too successful because I've never seen another.



So anyway, even though I didn't get it to operate, this was a worthwhile project. It would be possible to trace out the circuit. With a new tube and maybe some replacement capacitors this device might hum again.

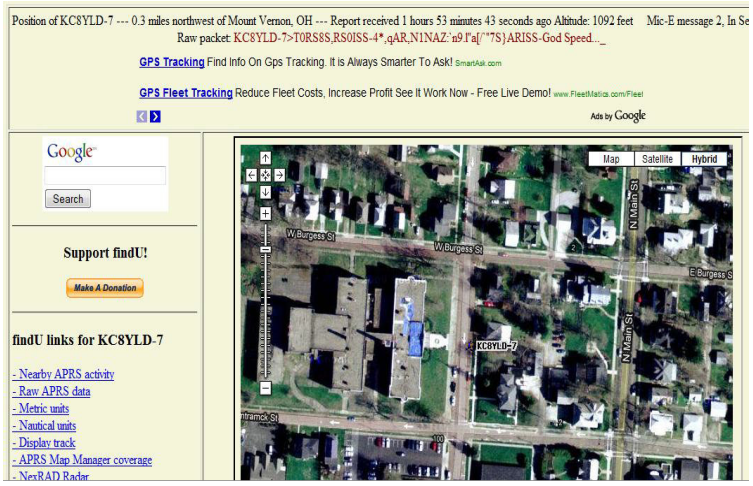
Interesting references:
http://www.telegraph-office.com/pages/mcelroy.html
http://artifaxbooks.com/mcelroy/handkeys.htm
http://www.google.com/patents/about?id=ActMAAAAEBAJ&dq=patent:2124338

Notes from KC8YLD

By Mike McCardel, KC8YLD

Our next VE test session will be held 10am March 12 at the American Red Cross Training Center, 300 N. Mulberry St. (rear) in Mount Vernon. All Elements will be tested and Walk-Ins are welcome

At this writing our technician class is only one class away from taking their tests. The class has gone well. The last class covered Satellite and APRS. Serendipitously it coincided with an ISS passover.



At 8:20 the class went outside and out to Mulberry street

where the instructors aimed a tape measure direction antenna attached to a VX8R Yaesu handheld. Soon the class was hearing packets being sent and digipeated through the space station. We could clearly see the call sign RS0ISS-4 appear twice during the demo. This is the call of the APRS station inboard ISS, a Russian call sign. Then to the delight of all appeared KC8YLD-7 the call sign being sent from our handheld. We had successfully passed our packet through the ISS digipeated and captured its return. Later while checking arise.net that our signal was also captured by N1NAZ, an I-Gate station in Londonderry, NH, owned by George Moranian. This allowed us to appear on the ARISS.net website as being officially heard by the ISS. All in all a great demo.

It was curious to see the zoomed in image of our position report in google maps. My icon for the handheld station is a walking man. Sure enough, when we zoomed in on the google map in satellite mode, there was my walking man icon standing out in the middle of Mulberry street right in front of the American Red Cross building. Just a bit eerie.

You won't get that during a cram exam session!

MVARC
Mt. Vernon Amateur Radio Club

Minutes for the February 14, 2011 Meeting.

By Jeff Butz, N8SMT

Attendees:

1.	Jim Jennessee	KD8UT
2.	Tom Evans	KD8HSA
3.	Jeff Butz	N8SMT
4.	Mark Bisenius	AC8FV
5.	Barry Butz	N8PPF
6.	Matt Ware	None Yet
7.	Patrick Valentine	None Yet
8.	Ruben Clark	KB2SAI
9.	E. Michael McCardel	KC8YLD
10.	Arlin Bradford	KD8EVR
11.	Brandon Hunt	KD8LPP
12.	Ray Ann Bradford	KD8NGW
13.	Ann Bradford	KD8LFH
14.	Don Russell	W8PEN
15.	Kevin Adams	KD8NGV
16.	Scott E. Fields	KD8OAB
17.	Larry Helzer	AA8WP

President Bradford opened the meeting at 7:15 P.M.

Secretary's Report: Jeff Butz, N8SMT
Jeff made a motion that the secretary's report for the January 10, 2011 meeting be approved as written in the newsletter. The motion was seconded by Jim Jennessee and was passed by voice vote.

Treasurers Report: **Barry Butz, N8PPF**
For the Month of December:

Income:	
Dues	$ 228.00
Interest	$ 0.35
50/50 Drawing	$ 10.00
Expenses:	
Printing Expenses	$ 50.00
High Lift Rental @ Field Day	$ 232.37
Balance:	**$2611.48**

EC Report: Ruben Clark, KB2SAI
Ruben thanked everyone for all the Net Reports he has been getting. The Skywarn class is scheduled for March28, 2011 @6:30 P.M. at Memorial Hall. The ARES and EMA are Sponsors. He asked if anyone could provide refreshments. Mike McCardel volunteered to bring a large coffee maker. Arlin Bradford volunteered to bring a large fruit punch container and he will bring the EM Comm. #1 Vehicle for display.

Class Committee, Don Russell, W8PEN
The first class was postponed because of weather and was held on Thursday January 27th and will run for 7 weeks. The test will be on March 12th @ 10:00 A.M. They have 7 students.

Repeater Report: Don Russell, W8PEN
The repeaters are running very good. The Echolink on the 440 repeater has been updated.

Field Day: Larry Helzer, AA8WP
Doc asked for volunteers for a committee. Don Russell, W8PEN, Barry Butz, N8PPF and Mike McCardel, KC8YLD volunteered. There was a discussion as to what site to use for Field Day. After the Discussion Barry Butz made a motion to hold Field Day at Bennett Park in Apple Valley and if it was unavailable to try to go to the same location as last year on the Hilltop at Apple Valley. The Motion was seconded by Jeff Butz and passed by voice vote.

Old Business:
Mike McCardel reminded everyone about the Boy Scouts' Spring Camporee scheduled at the Muskingum Valley Scout Reservation on April 15-17, 2011 entitled "Its A Disaster". He also reminded everyone about the Earth Day Challenge on April 16, 2011 at Kenyon College. Volunteers need to be there at 6:00 A.M with the first runners off at 7:00 A.M.

New Business:
Arlin Bradford appointed a committee for the Em Comm. #1 Vehicle. They are: Arlin Bradford, KD8EVR, Ruben Clark, KB2SAI, Brandon Hunt, KD8LPP, Mike McCardel, KC8YLD, and Patrick Valentine.

Arlin had a table at the Mansfield Hamfest where he sold items provided by Scott Fields with 10% of the proceeds going to the club.

The meeting was adjourned at 8:23 P.M.

Radio Activity

By Don Russell, W8PEN

The Technician Class course is coming along very well. We started with seven students and the same students are still determined to get their license. There is now an eighth student that we are working with maybe a ninth late starter. They will not be ready to take the exam on March 12, but the instructors will continue to work with them until they are ready. I plan on going with them whenever and wherever they take the test for moral support. That is the great thing about having the instructors we have. When we get a late starter, there are enough instructors present so that we can separate and do some individual teaching.

If I had it to do over again, I would have scheduled the class to last eight weeks. Because of the new question pool, some of the new material takes a bit longer to go over and I feel that we are rushing the students a bit. We will endure this time around, but learn the lesson that it is okay to schedule more weeks than really needed. The final week can always be used as a review before the big test.

All the instructors, and I believe the students too, were frustrated with the study material I had selected to use for the course. It works, but makes things more complicated than they should be by jumping around so much. I mentioned last month that I was writing my own course to use in next years class. Well, we rushed it into this class. I have been writing up the sections as needed, and Mark Bisenius, AC8FV, has been converting what I write to power point. This team effort has proven worth while, as I think classes are going much more smoothly. End results will be that we have a study guide that can be printed out and used as pre-study material and the power point to use during the class. This will be available for the next four years until they once again redo the question pool. I will play that a bit smarter too. I will start right in on modifying the course just as soon as the new question pool comes out. Hey, I will be looking for things to do because if all goes well, I will be retired by then.

With summer coming, Field Day is getting close. I think we should call Field Day: "Ham Radio Christmas in June". That is how fun it is and how much I look forward to it every year. This year should be fun and interesting. We are going to try a new location in Apple Valley, Bennett Park. It won't be as high as the Floral Valley site, but there is a permanent shelter there, a pond for fishermen tired of contesting, and a playground for the kids. Looks more family orientated.

Not sure if we will stick with four transmitters like we did last year, or go back to our three transmitter normal operations. I really liked the four transmitter gig. This year with the sunspots starting to come alive, 15 and 10 meters should be good bands to be on at least during daylight hours and possibly even after sunset.

It will take more antenna masts and/or towers because this sight lacks the tall trees of the previous site, but that should not be a problem.

The March issue of QST has a "V beam" construction article in it. I reviewed this article and think the "V beam" would make a very effective Field Day antenna. The last two years we have used Arlin Bradford's (KD8EVR) 3 element yagi. Perhaps it is time to try something different. Or perhaps the CW station will put up the "V beam" and see how it works.

Ever think of joining the ARRL? We have a lot of new faces in the club and around Knox County due in part to the success of our last three Technician Class courses. I really don't know how many of the newcomers have joined the ARRL, but I am guessing that a few have, but most have not. If you are a club member and wish to join the ARRL, please get in touch with the clubs treasurer, Barry Butz (N8PPF). If you join the ARRL through our club, the club gets around $15 for your first year. After that, when you renew, I believe the club gets $2. Not a bad deal for the club.

I believe every ham should belong to the ARRL. While I do not like everything that the ARRL does, I can't imagine what ham radio would be like today without their representation and leadership. Dare I say ham radio would be non existent if it were not for the ARRL fighting for our rights? I think that is a good possibility.

So do yourself and ham radio a favor by joining and supporting the ARRL. Okay, I am off my soap box now.

Looking forward to our March meeting at Allison's Finer Dinner. See you there.

AFFILIATED CLUB COORDINATOR REPORT

From the Ohio Section News Report

Mike McCardel, KC8YLD

Greetings, As I write this month I have discovered that 46 clubs have updated their Affiliated club listings since February of 2010. About half of those were updated since the beginning of October. This is just shy of 1/2 of all the Clubs listed as active in Ohio. Please double check your listing at the ARRL.ORG site and make sure everything is current. Many clubs are making updates but aren't updating the Annual Report Date Field or their Election of Officers Date field.

One of the things I think that should be part of my job is to remind clubs when their annual reports and Special Service Club renewals are due. I am also hoping to have regular contact with all the clubs in Ohio, but the only way to do these things if I have good updated contact information. So please help me help you.

This has been a busy month. I have attended three Hamfest. I tried for a fourth but bad weather prevented me from finishing the trip. My apologies to folks at TUSCOArc, I understand I missed a really good hamfest. I would like to thank all the folks from NOARS for making feel so welcome. They put on a nice winter hamfest and I encourage more people to attend next year and their summer Hamfest which I understand is quite nice. This is a really good club and I hope i get back to see again soon. Then there was the Mansfield Hamfest. People trading in three building at the Richland County fairgrounds while MARS, ARRL and OSSBN met in a fourth building. They even used a fifth building and were testing 18 for new licenses. A stellar job by their group. I was approached by many people and made a great number of eyeball QSOs. I really enjoyed myself.

Meanwhile around the state, Mount Vernon is hosting a Technicians Class and has about 10 people attending. This is no SlamCram. They spend 7 weeks presenting the materials and getting their charges ready. They are quite proud of success rate over the past five years. Mid-Ohio Valley ARC is getting ready for their hamfest on March 12 in Galipolis.

I am sorry that I will miss this one as I have VE commitment that Saturday. Toledo Mobile Radio Association Hamfest will be March 20 in Perrysburg. I should be able to make it that Sunday. Don't forget that Cuyahoga Falls ARC Hamfest is coming up April 9 and The Jackson County ARC Hamfest is April 23. There are a lot of good deals out there so get out of the winter blues and take in as many Hamfest as you can.

I also want to re-plug the Muskingum County Boys Scouts "It's a Disaster" event April 16. Contact John Penko KD8LFI if your club is interested in lending a hand.

John Penko, KD8LFI
1018 EastVine Street
Mount Vernon, OH 43050
jpenko@columbus.re.com
740-393-1375

I also was going to chat a bit about ARISSat-1 which was to be launched by the time you read this. Unfortunately, its launch has been postponed until July. But let's not despair. This will still be an excellent event for publicity, community service and recruitment. Plan now for the launch event this summer, and better yet, team up with your local schools for getting stations set up for when the students return to class in the fall. Middle Schools are excellent targets for interest here. See the Article in February's QST for more information. I am interested in hearing from any and all clubs as they start planning for this event. Let's see how many clubs can get their schools involved.

Think about following up with a class and exam. Let's not miss this golden opportunity. I am throwing out the glove and challenging our State Technical Coordinator Jim Yoder, W8ERW to come up with suggestion and strategies for how to interface with ARISSat-1. I also Challenge our newly appointed Public Information Coordinator, Scott Yonally, N8SY to help get the word out via our PIOs.

Until next month,

73,

E. Michael McCardel, KC8YLD
Ohio Section Affiliated Club Coordinator, ARRL

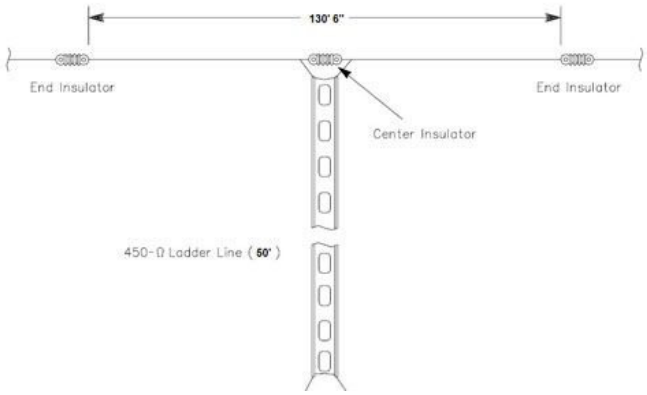
Old Reliable:
The Doublet Antenna
By Don Russell, W8PEN

It has been a long time since an antenna article has been published in the Newsletter. With all the new hams in Knox County and all the Technicians upgrading to at least the General class license, I thought it might be a good time to revisit one of my favorite antennas for the HF bands.

I used to use a dipole for each band I wanted to operate on. Needless to day, my tower and house looked a mess with all that wire going every which way. It took a while, but I finally decided to clean the mess up by installing one antenna. This antenna is called an 80 meter doublet.

The 80 meter doublet was my first real contest antenna. I did not do much contesting when I had dipoles strung all over the place. I was actually just getting into contesting when I strung by first 80 meter doublet up. I did eventually upgrade to a 160 meter doublet, but that antenna is much to long for the average lot, so let's stick with describing the 80 meter doublet.

An 80 meter doublet is simply an 80 meter dipole cut to length and fed with ladder line to an antenna tuner. It will work efficiently on 80 through 10 meters plus 6 meters if the antenna tuner will handle it. The most expensive part of this antenna is the antenna tuner. However, antenna tuners can be picked up for reasonable prices at hamfests. A new tuner is not all that expensive either. If you are ambitious, you can even build your own antenna tuner for very little cost. If you are fortunate enough to have an internal tuner in your transceiver, you may be able to use it. However, you cannot hook the ladder line directly to your radio. I will explain how to use your internal antenna tuner at the end of this article.



Drawing of a Doublet antenna
Taken from the internet

Other costs involve the antenna wire, insulators, ladder line, and rope with which to string the antenna up in the air. Ladder line will run about $40 for 100 foot roll. The drawing above shows 450 ohm ladder line. In reality ladder line from 300 to 600 ohm is okay to use. You can even build your own, but that will be in another article. Insulators are a buck or two each at hamfests or ham stores.

One last thing before we begin. If there is not enough room for an 80 meter doublet, consider trying a 40 meter doublet. At 66

feet long, the 40 meter doublet will allow operations on 40 through 6 meters. If building the 40 meter doublet, just cut the wire lengths in half from the instructions below.

Here are the steps to building your own 80 meter (or 40 meter) doublet:

1. Buy, beg, or steal (not recommended) 135 feet of wire. This wire should be able to support its own weight plus that of the center insulator and ladder line. I have used #12 solid and braided house wiring before. Braided is better. Solid will stretch a little over time, but that really is not a factor as your antenna tuner will handle it with ease. Lowes, Home Depot, or any of the hardware stores carry a good supply of wire. I have even bought #12 - 3 conductor house wiring when it was on sale, slit the cable and removed the wires. If you buy a 250 foot roll of this then you will have 750 feet of antenna wire. Enough for lots of antennas! It does not matter whether the antenna wire has insulation or not. White insulation is very hard to see in the daylight and would be a good choice to keep neighbors happy. If you are picky, you can buy copper antenna wire from most Amateur Radio Supply centers, including Universal in Columbus. But you might pay more for it.
2. Three insulators are needed. Two for the ends and one for the middle. The middle one could be one of the fancy ones designed for ladder line. It may even keep the ladder line from breaking off at a weak point. But this is not necessary. My doublet was up for years. I upgraded before it fell down. Maybe it never would have. You may have to order insulators or pick them up at the next hamfest. In a pinch, you can use1/2 PCV pipe, but you would want to support the antenna in the middle as I don't think the plastic will hold up if it had to support the weight of the antenna. To use PCV pipe, simply cut off a two or three inch piece and drill holes for the wires on each end. When soldering wires, keep the heat away from the PCV pipe, as it will start to melt. I have used PCV pipe for light weight antennas without any problem at all.
3. If you bought more than enough wire, cut it to 135 feet. This does not have to be exact. Plus or minus a few feet will have no affect on the performance.
4. Now fold the wire back on itself so that you can find the exact center. Cut it again here. You should end up with two wires each approximately 65 feet long.
5. If the wires are insulated, strip off about six inches on the ends to be attached to the center conductor. Now insert the bare ends of on of your wires through one of the center insulators holes. Twist the wire together so that it is tight and strong. Do the same with the other wire and the remaining hole in the insulator. See drawing to get a visual on what we are doing.
6. Now take the ladder line and strip off two or three inches of insulation from each wire of one end. One leg wraps around each antenna wire already attached to the insulator. Again, see Drawing.
7. Using a hefty soldering iron, or a propane blow torch, solder both connections. If using the torch, do not let the flame touch the wires. That will burn them and make it hard to get a good solder joint. Keep the flame away and heat the wires up slowly.
8. attach each end of the antenna wire to the end insulators and this completes building of the antenna. If you wish, you may use electrical tap and wrap the center and end insulators to keep moisture out of the wire. And ladder line.

Now that the antenna is built, it needs to go up in the air. The rule on putting an antenna up is: Get is as high as you can! If possible, aim for 30 feet or greater, but this antenna will work well even as low as 20 feet. You will need two supports that the antenna will fit between. That would be greater than 135 feet apart. Stretch it tight so that it is not drooping in the middle too much.

Personally, I like to use a center support. This takes a lot of stress off the wires and center insulator. If using a center support, the ends of the wire can run down to as low as seven or eight feet on each side. High enough so people can walk under the antenna with having to duck. An antenna configured in this way is often called an Inverted V antenna.

The ladder line should go directly into the shack. Avoid running close to steel structures such as towers and aluminum siding. Free hanging straight to a window or wall feed through is best. Unlike coax, one has to pay particular attention to how ladder line is run.

Run the ladder line directly to your tuner in the shack if possible. Read your tuner manual on how to attach a balanced line antenna to the tuner.

If the rig has an internal tuner, another possibility is to run the ladder line to a 4 : 1 balun mounted on the house outside. The balun will convert the high impedance of the doublet antenna down to something agreeable with your transceivers antenna tuner. Now run coaxial cable from the balun to the transceiver. Place the balun so you can keep the coax run as short as possible. The cable run should be 10 feet or less. Also, use low loss coax for this RG-8 or better would be okay for this. Not RG-8X, or RG-59. The radios internal antenna tuner should do the rest for you.

There you have it. This antenna is a very good performer and may be the only HF antenna you will ever need. Towers and beams are nice, but costly. You can have a lot of fun with this antenna and spend less than $100 on it.

ARISSat-1 preview April 12

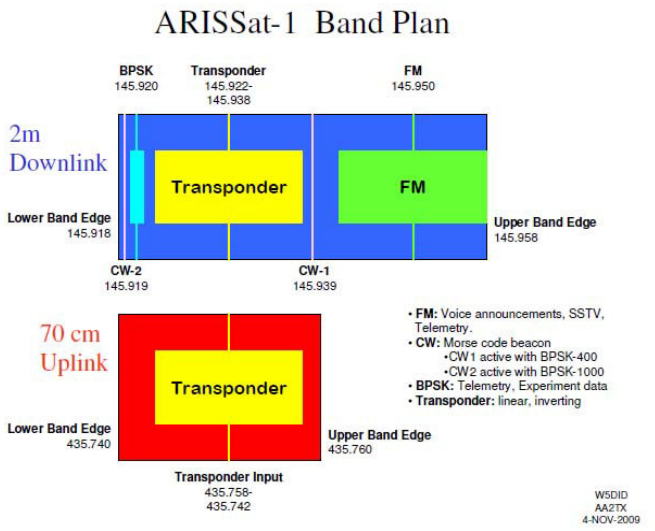
While ARISSat-1 won't be released into space from the space station until until Mid July, it will be put on the air April 12. To celebrate the 50th anniversary of Yuri Gagarin's historical first flight making him the first human in space, ARISSat1 will be activated by being attached to an outside antenna while still inside the space station.

AMSAT will support this event and issue certificates to those stations reporting reception of the ARISSat-1 signals.

Listen for CW near 145.919 and BPSK1000 telemetry will be centered at 145.920. Software to interpret this mode and the telemetry is or will be available online.

There is a Software Defined Transponder (SDX) running between 145.922 and 145.938 on download. A separate 70cm SDX for uplink will be found between 437.758 and 437.742. An

FM signal can be found centered at 145.949.



So what can it do?

FM transmissions will cycle between voice ID, select telemetry values, 24 international greeting messages in 15 languages and live SSTV images.

CW transmissions will contain ID and call signs of people actively involved in the ARISS program.

BPSK1000 is designed to be readable in low signal level conditions and will alternate between telemetry and Kursk experiment data. Look for software at

https://svn.sarpeidon.net/viewvc/suitsat2/ground_station_software/ARISSatTLM/releases/

There is a 16KHz wide amateur radio mode U/V linear (SSB/CW) transponder between the BPSK and FM signals. The Kursk experiment will measure vacuum each day for 90 minutes.

This could be a great dry run for it's launch in July. If you have time to listen.

Threat to The 70 cm Band

Your prompt help to defend one of our amateur bands is urgently requested. Please read and follow through on the requested action.

You may have already heard that our 440 MHz band is being attacked by a bill introduced into the US House of Representatives. In its current form, HR 607 would take away the 420-440 MHz segment that is presently allocated to Amateur Radio on a secondary basis as our 70 cm band. Along with certain other segments not allocated to Amateur Radio, the 420-440 MHz segment would become part of a spectrum “give back” involved in allocating 758-763 and 788-793 MHz for a Public Safety
broadband network.

The concept of this network has merit. Everyone wants first responders to have the radio systems they need in order to protect themselves and us. However, there is absolutely no need to take our 440 MHz band in making it happen. We need to let our US Representatives know we oppose the current form of HR 607.

To let your US Representative know you oppose the present bill, go to http://www.kd4pyr.net/hamletter.htm and Insert your call sign where indicated and follow the simple instructions. The name and address of your US Representative will automatically be put into the letter, as will your name and address. It will be ready to be printed and signed.

IMPORTANT: Please be sure to observe the following once you have printed your letter:

- Be sure to sign it. Letters without a handwritten signature are not effective.
- Signed letters can be sent by fax or postal mail. They can also be scanned into PDF format and e-mailed as a file attachment.
- Postal mail: John Chwat, Chwat & Co., Suite 103, 625 Slaters Lane, Alexandria, VA 22314. E-mail: john.chwat@chwatco.com. Fax number: (703) 684-7594.
- Do not send this letter or any letter about HR 607 to your USSenators at this time. The bill is only in the US House of Representatives. Letters sent on HR 607 to US Senators will merely waste their time and demonstrate lack of knowledge of how our system of government works.

WHY SHOULD the letter be mailed to John Chwat? There are two reasons. First, all postal mail to members of the US House (and other government bodies) is delayed 6 to 8 weeks in being searched for hazardous materials that may be included in them. Second, Mr. Chwat will increase the value of your individual letter by combining it with others and delivering the stack of letters directly to your Representative's office. This manner of delivery makes a particular impact on our Congressmen.

If you feel it necessary to mail your letter directly to your Representative, do it. However, please also send a signed copy of it to Mr. Chwat for the reasons outlined above.

For your information, the letter generating utility will be open for use by any US amateur for at least a couple of weeks.

Thanks for your help and support in this important effort. Please let me know if you have any questions or suggestions.

73,
Jim

PS: Thanks to Rick Haltermon, KD4PYR for developing the letter generating utility. He was aided by Trey Garlough, N5KO who wrote the initial program. Rick continues to add flesh to the program.

Jim Weaver, K8JE, Director
ARRL Great Lakes Division
5065 Bethany Rd.
Mason, OH 45040; Tel. 513-459-1661
ARRL, The national association for Amateur Radio

BSA Spring Camporee "It's a Disaster"

Help promote ham radio to 300 youth ages 11 - 18 + Adults and siblings.

Come to Coshocton and help promote Ham radio to 300 youth and adults.

The BSA Spring Camporee is coming and I need a few more hams to cover the disasters. Please let me know you are coming via e-mail. I still need another net control person and a few more operators to cover the disasters. Please see the February newsletter for detailed information.

On Saturday April 16th we will need 20 ham operators to provide communications for the Saturday camp-wide disaster event. The Zanesville communications trailer will be setting up a 70 centimeter repeater. Ham operators are needed to cover a variety of positions including the command trailer (net control), the 14 field disaster sessions, provide communications for the non-ham event organizers, and to provide a method for each session to make the call for help. The ham operators will need to be stationed at the Red Cross shelter, at the lake boat house to cover the flood and the ice rescue, another will be at the staff building to cover the hostage situation and the S.W.A.T team. With all these disasters it should be an exciting day no matter where you are stationed.

What we need you to do:

1. Mark you calendars and make plans to be in Coshocton on the morning of April 16th from 7:30am to 5:30pm. Staff meeting and instructions are at 8:15am at the dining hall. Lunch will be provided by the Mount Vernon Red Cross.
2. Let us know you are coming. Please e-mail Jon Penko – event communications organizer at jpenko@columbus.rr.com. If you can only be there for part of the day that would be great to provide shifts for the various sessions.
3. Program your radios to the frequencies in the February Newsletter.
4. Prepare to introduce a young person to the hobby and tool of ham radio.
5. Get the word out to other ham operators about the event. Pass this information to other hams in neighboring counties.

More information is available at muskingumvalleycouncil.org