Ham Radio Rocks!

The Mt. Vernon Amateur Radio Club

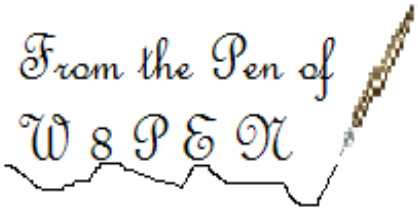
March, 2009 Newsletter

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



President Arlin Bradford, KD8EVR, informed me that the Interim EMA Director and his assistant have been invited to our March meeting. They are both interested in becoming hams. Also, Salvation Army representatives are planning on attending. They are very interested in the Ham Radio Classes we are planning and have offered us use of their facilities and several possible students. It would be nice if we had a good turn out for the meeting to welcome them.

Welcome to the March 2009 edition of the MVARC Newsletter. Starting this month, I am adding a section with updated information on the KD8EVR repeater. This mainly affects the Echolink portion of the repeater. The reasoning behind this is that the "Favorite Stations" list may/will continually change as new stations are added to the list. As I check out stations on Echolink via the KD8EVR repeater, I will add stations that seem to be fairly active. That way, if one wants to try Echolink, a two or three digit code will give you quick access.

For example, one of my favorite nodes to connect to is the Ashland County UHF repeater. Most times that I have connected to this repeater via Echolink I have had a very nice conversation with someone. Helps to pass the time when walking my dogs or going mobile. Please check out this new feature, which appears on page 3.

By the way, with the Echolink now in operation, the KD8EVR is a fun repeater. Members should check it out

MVARC Club Meeting is Monday, March 9, 2009 at 7:00 P.M. in the Red Cross Annex Building, 300 North Mulberry Street, Mt. Vernon, Ohio. The program for this Months meeting will be information on how to put the 2 meter Repeater is the various modes: Net Mode, Weather Watch Mode, and Weather Warning Mode.

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

Also check out the UHF net on the KD8EVR Repeater. This net runs each Wednesday at 9:00 P.M. and is a social net. Please join us for the fun of it.

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 fair turnouts for this event.

****The next Breakfast will be March 14, 2009 at 9:00 AM at Ryan's Steak House, 1515 Coshocton Ave. , Mt. Vernon, Ohio.****

if possible. The hope is that the added feature of members being allowed to access the random node and favorite station list on this repeater will spark some much needed local activity. Did I mention that I talked to a station in Hamburg, Germany the other day simply by accessing the random node feature? This is fun!

In addition, if a member finds a node or station that merits addition to the favorite station list, please let me know. Indeed, if a member has a friend that uses Echolink, then that station can be added to the favorite list to provide the member with a three digit easy access code via the KD8EVR repeater. Just let me know.

The KD8EVR repeater is owned and operated by Club President Arlin Bradford, KD8EVR. Just like the Club sponsored 2 meter repeater, it is open to all users whether that user is a club member or not. All are welcome to use either repeater as often as they like. No strings attached! We love having people to talk to.

Radio-Activity

By Don Russell, W8PEN

I was sitting around the house this past weekend thinking about Spring. Looking at my tri-band beam, the driven element is once again at a 45 degree angle rather than horizontal like it is supposed to be. Guess I should have drilled that hole through the driven element and mast as Barry, N8PPF, suggested last summer. Another intended to do job by the wayside.

I have decided to eliminate the problem by once again taking this beam out of service. Meaning removing it from the tower. Although this is a small beam compared to some of the monsters my contest friends put up, I was never entirely happy with it on my tower. It works great, no doubt about it. I just always worried when the winds started to blow. Although my self supporting tower has never had a problem with this antenna in the wind, I still worry. In reality, it stood up to the hurricane force winds of last summer without a problem. Still, as I get older, the 55 pound weight of the antenna will make it harder to bring down if repair or replacement is ever needed. This beam has been up and down several times in the last five years or so. This time I plan on taking it down permanently.

What this does is stir my imagination as to what kind of antenna would be a good replacement for the beam. This is what I was actually dreaming of. It is unlikely that any wire antenna that I install will outperform the Tri-bander. But what kind of antenna would help me do better in the next contest? Yes, my windom is a good antenna for 160, 80, and 40 meters. It even does okay on 20 meters. Always make some contacts on 15 meters during a contest. On 10 meters this year I even worked California on double hop e-skip with the windom. I really like my windom, but it is always good to have more than one antenna to work with during a contest.

As I see it, I have several options. One, I could simply raise the windom by about 15 or 20 feet. This would put the apex of the windom about where the Tri-bander was. I would need some kind of slip ring so that the windom would not twist when using the rotator to turn my 6 meter beam; being that the feed-line insulator would be attached to the antenna mast above the rotator. This would be good, but I am not sure the additional height would make much difference in the antenna performance.

The second option would be to install a rotatable dipole for 20 - 10 meters or maybe even 40 - 10 meters in place of the Tri-Bander. This is a serious contender. It would be great to have a 40 meter dipole at 55 feet and be able to rotate it to the direction one wants to work. The downside is the price. I have seen commercial versions of these dipoles for $250 - $400! Not going to happen. It may be possible to homebrew my own and this keeps my imagination churning. A possibility.

Third option: A loop antenna for 20-10 meters. I have thought about this a lot. The loop antenna the club uses for Field Day seems like a good antenna performance wise. I could go with a like antenna, only instead of being diamond shaped, it would be square. Being square would make the horizontal wires 18 feet long and the vertical wires 18 feet from the top of the tower. This loop would perform well on 20 meters. Problem would be on the other bands. I would need to run ladder line down the tower and into the shack. Something I decided against several years back when I replaced my doublet antenna with the windom. Possibly, I could place a 15 meter loop inside the 20 meter loop, and a 10 meter loop inside the 15 meter loop just like they do with tri-band Quad antennas. But this is getting complicated and maybe a pretty ugly thing up on the tower.

Searching the internet, I found information on building a Multi-Band Super Mini Loop Antenna.

http://www.bloomington.in.us/~wh2t/Super%20Loop%20Antenna.htm

This antenna covers 80 - 10 meters and has supposed gain of 4 db on 40 meters. That would be pretty impressive, but I am afraid that although the antenna is simple to construct, it is a bit oversized for my taste and situation. The 100 foot wingspan turned me off. While the antenna would be possible on my lot, I would not be able to orientate it in a direction that I felt would be of benefit to me. Okay, re-design the antenna to work on

40 - 10 meters. This is better, but still a 50 foot wingspan. Gain would move up from 40 meters to 20 meters (4 db gain on 20 meters.). One more step down in size. How about 20-10 meters. Now this one is looking possible. From my calculations, the wingspan would be about 20 feet. Gain on 20 would be about 2 db and the gain on 10 meters would be around 4 db. The antenna should work on 15 meters too. All this with one coax feed line.

I am not going into the antenna details yet. I am still dreaming about this antenna. I can see this antenna being built with bamboo or fiber glass booms and weighing in at under 5 pounds. That sounds a lot easier to install than a 50 pound plus beam! Possibly I could even mount this antenna on my tower mast and be able to rotate it as one would a beam. After all, the radiation would be broadside to the antenna, so turning it would be an advantage. Alternatively, I could construct two of these antennas. One would point to the East and West and One would point to the North and South. A simple antenna switch would give me instant direction change.

The fourth antenna system I am thinking about is a 20 meter J-Pole antenna.

http://www.vcars.org/tech/20_Meter_JPole.htm

Maybe a 15 meter J-Pole and a 10 meter J-Pole too.

http://www.hamuniverse.com/jpole.html

J-Pole antennas are very popular on 2-meters. Most do not realize that they can be made for the HF bands too. Why use a J-Pole on HF? No ground radial system required. Plus, some gain over a simple quarter wave vertical. Also, they are grounded antennas, meaning some lightening protection is afforded. I am not sure of the facts yet, but it looks like I can use my tower as the radial part of the J-Pole. In fact, I may be able to place a quarter wave matching section of the J-Pole antenna at strategic locations on the tower. One each for 20, 15, and 10 meters. This would create a very clean looking vertical antenna system. I need to do more research on this idea before I commit to it.

Another idea for the J-Pole antenna would be to mount three 20 meter J-Poles in a triangle about a half wavelength apart. Then, using an antenna switch, two antennas could be fed in phase to create gain in the desired direction. Much more gain than would be yielded by two quarter wave verticals fed in a like manner. Again, a lot of research would have to go into this before actually building this kind of antenna system. Downside would be that only one band would be covered by this system.

One last idea should be considered. This would be idea number five: Four dipoles could be sloped from the top of the tower much like guy wires are sloped. Remember,

KD8EVR Repeater Updated Echolink Codes

Main Codes:

Code	Result
00	Connect to a Random Node
01	Connect to a Random Link
03	Connect to a Random User
08	Echolink Status
09	Reconnect to the last Node
CXXXX	Connect to a known Node where XXXX is the Node Number.
#	Disconnect for a Station or Node.

In addition to these basic codes, here are a few speed key nodes. When connecting to these stations, one does not have to enter the "C" and Node Number. Just enter the speed key sequence:

79	K8EEN-R: Mt. Vernon, Ohio
80	K40BX-R: Hatteras Island, N.C.
82	KG8FV-R: Polk, Ohio (Ashland County)
84	W8DF-R: Battle Creek, Michigan
100	KD8EVR: KD8EVR'S Computer
101	KD8KDM: Mike, Saint Paris, Ohio

See the February 2009 Issue of the Newsletter for detailed instructions.

I have a free standing tower. With the proper length of feed line and an antenna switch to switch between the dipoles, there would be one driven element and four reflectors, giving four possible directions to point the antenna. The feed line of the antennas not being used as the driven element would be long enough to resonate the four reflectors about four percent lower in frequency, thus making them electrically longer than the driven element and turning them into effective reflectors. This system has been written up in QST and the ARRL antenna handbook for the lower bands of 160, 80, and 40 meters, but has never been tried on 20 meters.

As with the J-Pole Vertical Array, this system would be limited to one band. Or could I use 40 - 10 meter or 20 - 10 meter trapped dipoles? I can also seeing it be a bit too ugly for my XYL to put up with.

Again, these are just ideas that I have spent the weekend thinking about. I think the Multi-Band Super

Mini Loop is more attractive than the others, so I will be checking this out a bit more. If I put this loop up and it performs well, perhaps I will convert our field Day Loops to this design. In fact for Field Day, the 80 - 10 Meter Super loop may be a great antenna!

See my article on the J-Pole antenna later in this Newsletter.

See you at the meeting.

BSA UPDATES RADIO MERIT BADGE REQUIREMENTS

(From the ARRL Letter, Feb 27, 2009)

The Boy Scouts of America (BSA) has updated the requirements needed to earn the Radio merit badge. The new requirements became effective with the publication of Boy Scout Requirements 2009. While no new content has been added to the program, the new merit badge pamphlet features lots of new information -- including color pictures and updated charts and text -- that reflects the changes in the Amateur Radio Service since the last pamphlet update in 2002. Approximately 4000 Radio merit badges are earned each year.

According to ARRL ad hoc Scouting Committee member Larry Wolfgang, WR1B, the new Radio Merit Badge pamphlet had been in the works for some time. "BSA has been replacing all merit badge pamphlets with new booklets using color graphics and more modern presentations," he said. "With attractive color photos and clear text explanations of the requirements, the new merit badge pamphlet is a pleasure for the Scouts to read. The new text is due in large part to the efforts of longtime Radio Merit Badge Counselor and K2BSA National Jamboree Staff member Mike Brown, WB2JWD. I am looking forward to using the new pamphlet to teach Radio merit badge at our Council's Merit-Badge-O-Ree this spring, and to having a supply of the new books available for Scouts during the 2009 summer camp season."

Wolfgang said that the requirements for the badge have been shifted around: "The old Part 4 of Requirement 7(b) Broadcast Radio was pulled out and placed in the main body of the requirements as Requirement 8. In addition, the old Requirement 8 (to visit a radio installation and discuss what types of equipment, how it was used, what types of licenses are required to operate and maintain the equipment, and the purpose of the station) was moved up to Requirement 7, so that now the three options appear as Requirement 9. The main result is one additional full requirement."

ARRL Rocky Mountain Division Director and Chairman of the League's ad hoc Scouting Committee Brian Mileshosky, N5ZGT, called the Radio Merit Badge "a perfect avenue to introduce Scouts and Scouters to the wonderful world of ham radio. Ham clubs across the nation should locate a local Boy Scout Troop, secure permission from their Scoutmaster and/or committee to teach the merit badge and deliver an exceptional Radio merit badge class. What the boys -- and their leaders and parents -- will learn in the process is a fair amount of what is part of the Technician license exam, so the next logical step after a merit badge class is an all-out recruiting effort to get that Troop involved in Amateur Radio. They'll meet new friends and have a great way of communicating while in transit to and from the field, as well as additional peace of mind through an effective means of emergency communications while in the backcountry."

For a complete overview of the Boy Scout Radio merit badge, see the Radio merit badge page on the BSA Web site

http://www.scouting.org/boyscouts/advancementandawards/meritbadges/mb-RADO.aspx

MVARC

Mt. Vernon Amateur Radio Club
Minutes for the February 9, 2009 Meeting.

By Jeff Butz, N8SMT

Attendees:

1	**Larry Helzer, DVM**	**AA8WP**
2	**Jeff Butz**	**N8SMT**
3	**Arlin Bradford**	**KD8EVR**
4	**Steve Barr**	**KD8GRM**
5	**Tom Evans**	**KD8HSA**
6	**Mike McCardel**	**KC8YLD**
7	**Don Russell**	**W8PEN**
8	**John Lilley**	**Guest**
9	**Brandon Jacobson**	**Guest**
10	**Nathan Campbell**	**Guest**
11	**Derek Masters**	**Guest**

President Bradford formally called the business meeting to order at 7:07 P.M.

The minutes were approved as written in the newsletter.

Treasurer's Report: , **Don Russell, W8PEN**
No new treasure's report since Barry, N8PPF is on vacation. Last month report as stated in the newsletter is:

Balance on 1-1-09:	$ 2509.97
Income:	
Interest:	$ 1.76
Dues:	$ 12.00
Expenses:	
None	
Balance on 1-31-09:	$2523.73
Designated Funds	
Year 2005 Repeater Fund:	$ 701.94
Field Day Fund:	$ 133.24

EC Report: Ruben Clark, KB2SAI via Arlin Bradford.
Skywarn training is tentatively scheduled for March 12th but that has not been confirmed.

Old Business:

Status of Club Incorporation:
Jeff Butz, N8SMT checked with the Secretary of State and advised we are OK until the end of 2009. However the Club agent and address needs to be changed from Bob Bruff. He brought a form to change the agent and the address to the club's post office box. This form needs to be signed by two officers or members of the Board of Directors.

New Business:

Year End Report
Mike McCardel, KC8YLD stated the Year End Report needs to be filled out on the ARRL website.

Earth Day Challenge
Mike McCardel, KC8YLD reported that April 19th has been announced as the date for their The Earth Day Challenge at Kenyon College and we have been asked again to provide assistance.

Mike Mc Cardel, KC8YLD moved we participate in the Challenge again this year. The motion was seconded Don Russell, W8PEN by and approved by voice vote.

Technician Class and Exam
There was a general discussion on when and how to hold a Technician Class and Exam.

Mike McCardel made a motion that the club put on a technician class and that he and Don Russell form a committee to make sure it gets done. The motion was seconded by Jeff Butz, N8SMT. The motion was passed by voice vote.

The motion to adjourn was made by Jeff Butz, N8SMT and seconded by Mike McCardel, KC8YLD and approved by voice vote.

The meeting was adjourned at 7:50 P.M.

ARRL DX PHONE CONTEST BRINGS DX IN FULL FORCE TO HF BANDS

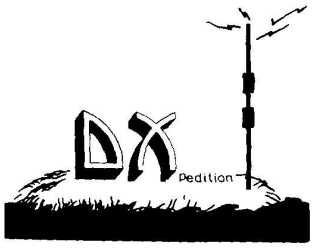
(From the ARRL Letter, Feb 27, 2009)

With the 2009 ARRL International DX CW Contest now history

http://www.arrl.org/news/stories/2009/02/11/10644/?nc=1

the first full weekend in March brings the next round of competition: The 2009 ARRL DX SSB Contest:

http://www.arrl.org/contests/rules/2009/intldx.html.



Like its CW predecessor, this event focuses on DX stations working all US states and Canadian provinces, while US and Canadian amateurs try to work as many DX countries as possible over the 48 hour contest period.

"While the origins of the ARRL DX Contest go back to 1929, the first Phone weekend wasn't until 1937," said ARRL Contest Branch Manager Sean Kutzko, KX9X. "AM was the voice mode used at that time. The rules may have changed since the event was held back in the 1930s, but the premise remains the same: How many contacts with stations in far-away locales can you make?"

Just as in the CW contest a couple of weeks ago, US and Canadian stations send a signal report and their state or province, while DX stations send a signal report and their transmit power. Remember that for this contest, Alaska and Hawaii are considered DX stations -- this means stations in KH6 and KL7 focus their efforts on working Stateside and Canada.

How can you participate? Kutzko said you're only limited

by your imagination and willingness to get on the air: "Even though we are at the bottom of the 11-year solar cycle, there will be plenty of chances to work DX, even for stations running 100 W and a dipole or vertical antenna. If you live in an area where antenna restrictions exist, take your contest effort on the road! Operate from your car, set up a portable antenna in a park or campground or see if a friend's station is available. If you have a station and won't be using it, consider opening your doors to members of your club to try their hand at working some DX. If you make 100 QSOs, you're eligible to purchase a commemorative pin for your efforts."

The ARRL DX Phone Contest runs from 0000 UTC Saturday, March 7 to 2359 UTC Sunday, March 8. Complete rules and forms are available online at:

http://www.arrl.org/contests/forms/

Why let all this DX pass you by? Get on the air and have some fun!

From the President

VP Tony, KC8UR congratulates President Arlin, KD8EVR on passing his Gerneral

My fellow hams. Well, I was able to pass my general exam at the Mansfield Ham fest on February 15th. My studying payed off. Still a little confused on how the stars and there alignment effects me talking on the radio. (Hihi) After passing the exam and Tony Spiegel, KC8UR, there as a VEC, he congratulated me on a good job. I was excited to get home and play radio on the HF bands and say "Temporary AG". However, work called me out of town and did not return to my HF rig till late Wednesday. The flu bug took a hold and I finally made me some QSO's late Friday night and early Saturday. In fact, I am now a member of the Trans-Continental Early Bird Net on 3.940 MHz at 4:45am every day. After 10 check-ins in a month, they send you a certificate for your shack.

I have enjoyed the newly opened bands that my license now permits me to operate and encourage anyone thinking about upgrading, to study regularly and advance your knowledge and operating privileges. I will remain at the General class for a time, and who knows, maybe someday upgrade again. More studying though. My hat off to John Lilley, KD8KFG, on passing his Technician class on Feb 14th. John attended our meeting last month and is ever eager to excel in the hobby. And to my friend in Lexington, John Eppley, for passing his Technician class also. 2 down 18 to go for my goal this year.

73's and God Bless. Talk to you all on the radio.

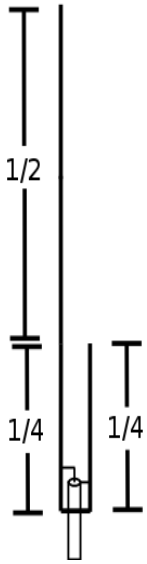
Arlin Bradford, KD8EVR
President Mt. Vernon Amateur Radio Club

HF J-Pole Antennas

By Don Russell, W8PEN

Picture of the J-Pole on the right is from:

http://en.wikipedia.org/wiki/J-pole



Many hams are familiar with the standard ¼ wave vertical antenna. It has been around forever, and depending on who is talking is either a very effective antenna, or a dummy load that radiates equally in all directions. I have had mixed results myself with vertical antennas. My current vertical is a Butternut H2V, which covers 80 and 40 meters. My vertical has a decent radial system consisting of 32 47 foot radials buried a couple of inches underground.

This vertical works fabulously on 40 meters. I often get very good comments on my signal strength when using this antenna with 100 watts. That is, as long as I maintain my radial system. If the radials are not making good contact with the feedline, then the antenna is almost worthless on 40 meters (like a dummy load). On 80 meters the antenna works fairly well, but not as well as on 40 meters. In fact, I only use this antenna on 80 CW. It is not very good on SSB. This is not surprising with the fact that it is only 1/8 wavelength long with a loading coil at about the five foot level. Again, remove the radial system, and results are very poor on 80 meters.

A very popular antenna on 2 meter FM is the J-Pole antenna. Some are made from copper pipe. Others are made from 300 ohm TV type twin line or 450 ladder line. These are the ones that you might keep in your Emergency Radio Bag as an easy to put up antenna. They work fine for that purpose.

I was wondering one day if a J-Pole antenna for the HF

bands would be an effective antenna, so I did a Yahoo Search on the internet: “HF J-Poles”. While not real popular, I did get a number of hits. J-Poles for HF have been built for 20 and 10 meters. I found little info for 15 meters, but hey, that is just a calculation away.

One web page used a 40 foot telescoping mast for his J-Pole and was very successful. Claims it is a very good antenna for 20 meters. Many stations use a J-Pole antenna on 10 meters for their Beacon antennas.

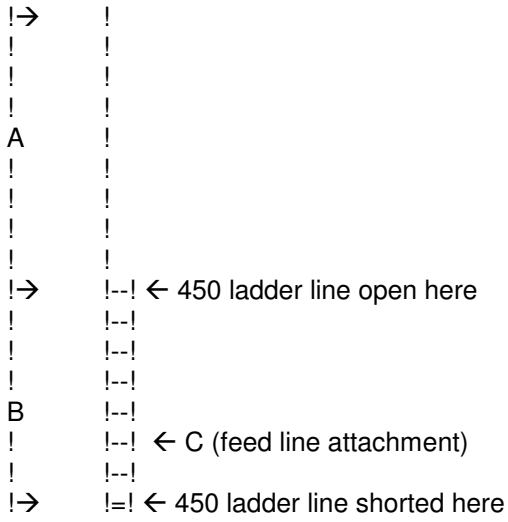
In my Radio-Activity column, I mentioned using a J-Pole antenna as a replacement for my Tri-Band Beam. I think a properly installed single J-Pole or even two J-poles fed together could be a very effective antenna, especially for one wanting to work DX. I am not much of a DX’er, so the J-Pole may not be the antenna for me. However, I may give it a try. California is far enough away to require a low take off angle to put a big signal in there, so a J-Pole or two may be just the ticket.

Why a J-Pole rather than the standard ¼ wave vertical? A J-Pole does not require a radial system for good performance.

For now, I am only looking at J-Poles made out of wire. Actually a combination of 450 ohm ladder line and single conductor wire. Here is where I got my design from:

http://www.qsl.net/n1lo/antenna.htm

Here are the plans for virtually any HF J-Pole antenna:



The bottom of the antenna is made of 450 ohm ladder line. Dimension B is the length of ladder line needed on both sides. It is ¼ wave of the operating frequency and acts as a quarter wave matching stub. Dimension A is ½ wavelength at the desired frequency and is the radiating wire. It is connected to one side of the ladder line. Dimension C is that point at which the feed line is connected. Connect the center wire of coax to the left side (radiating side) and the braid to the right side (stub side). In reality, I do not think that this matters though.

Calculated Dimensions are as follows:

20 Meters:

A = 33.2 feet
B = 16.5 feet
C = 1.6 feet

15 Meters:

A = 22.2 feet
B = 11.0 feet
C = 1.1 feet

10 Meters:

A = 16.6 feet
B = 8.3 feet
C = 0.8 feet

I used a calculator located here:

http://www.kb3kai.com/j-pole-calculator.php

One thing I did notice was that the spacing between the radiating element and the stub is not correct. Obviously, you have only one spacing for all frequencies when using ladder line. Since I have not tried one of these antennas yet, I just do not know how critical that spacing is. It may be difficult to get a good SWR match using ladder line spacing on HF. However, I have heard reports that these antennas do work rather well. The only way is to build one and try it for yourself, which I plan on doing.

Perhaps a better way to build this antenna would be to use cooper tubing at least at the critical bends of the stub. That way one could get the proper spacing. Once this is accomplished, a wire could be soldered to finish the radiating element. I think I would make the entire Dimension B out of cooper pipe or aluminum tubing, and then add to the radiating section with wire.

There is nothing saying that the antenna has to be entirely vertical either. A J-Pole for 20 meters looks to be right at 50 feet. One could probably string up the wire as high as possible and run the remaining wire horizontal without affecting the performance a great deal. Ever hear of a J-Pole Inverted “L” antenna? Maybe I just came up with a new antenna design! Experimentation is the name of the game here. The other two bands are short enough that this should not be necessary.

So there it is. An antenna I just may work on this spring. Heck, I may put up one for 40 meters. It would be about 100 feet long, so not all of it would be vertical for sure.

Next Month: The Super Loop Antenna!

Mt. Vernon ARC Officers

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Clip Art and Cartoons thanks to http://wm8c1.50megs.com/radio_clip_art.htm, http://www.qsl.net/k4adl/, http://pages.prodigy.net/kg0zz/clipart/ham_art3.htm, http://www.arrl.org/,

The ARRL letter is a weekly e-mail publication by the ARRL. You may read the entire ARRL letter by visiting the ARRL Web page at http://www.arrl.org/. **Other News** from: http://ky4ky.com/fyi.htm.

The ARES E-Letter is an e-mail digest of news and information of interest to active members of the ARRL Amateur Radio Emergency Service (ARES). Past issues of The ARES E-Letter are available at http://www.arrl.org/ares-el/. Issues are posted to this page after publication.

Project OSCAR is a monthly column written for Newsletter Editors. Columns will appear as space permits. You may download all the columns yourself at: http://www.projectoscar.net/beacon.php

Members are encouraged to send articles pertaining to ham radio, with an emphasis on local activities, equipment reviews, and personal experience to w8pen@arrl.net or Don Russell, W8PEN, 815 Brookwood Road, Mt. Vernon, Ohio 43050

Membership Form

Club dues run from Jan. 1 until Dec. 31 and are collected during the last quarter of the year. You can mail in the dues to the address below or bring them to a meeting. Dues are prorated for new members at the time of application. Visit our Web Page at www.mvarc.net

Dues Schedule: $12 regular

$10 for second member in the same family, for those over 65 yrs. of age, and for those living outside Knox County

Mt. Vernon Amateur Radio Club, P.O. Box 372, Mt. Vernon, OH 43050

Name_____Call-Sign_____

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