



BROOKHAVEN NATIONAL LABORATORY AMATEUR RADIO CLUB

MAY 2014

# NEWSLETTER

## BNLARC QRP Group Update

by KE2GS



Here is what a finished Rockmite in an Altoids tin looks like. The kit took me several evenings to complete but I only spent a few hours at a time working on it. Mine seems to transmit just fine but there is an issue

with the receiver section. Please note that a few of us ordered kits or parts from [qrpme.com](http://qrpme.com) at the end of April and have not received them to date. He sent me an email stating that he was busy with a build-a-thon at the

### In the Shack

Those onsite may use the shack anytime for DX. We do ask that you are first shown how to operate the DX rig. You can get the key from Nick (X5467) anytime but you have to promise to return it after each use.

The club has purchased an antenna analyzer as well as 2 hand held HTs.

### CW CLASS IN SESSION

It's not too late to join in on all the fun. Contact Nick (X5467) for details.

-Gary Stevens  
KD5SFQ

## Upcoming Event

### ARRL Field Day

**June 28-29, 2014**

Gear up for the most popular on-the-air operating event in Amateur Radio. Shirts, hats, pins, patches, and mugs available while supplies last.

▶ [Get Details](#)



**Don't forget about Field Day 2014!**

## First attempt UHF ground plane antenna update

By Joe Levesque  
KD2FUB

Last month I described my first try at constructing a ground plane for UHF. I had a few more items I wanted to try with the antenna prior to calling it a wrap. Let me also correct an error, the welding rods are 3/16 inch diameter, not 3/8 inch as previously stated.

The first change was to apply liquid tape to the SO-239 radiator connection to improve its water resistance and possibly use the antenna outside. The SWR at 446 MHz was 1.4:1 with 18 ft. of RG-258 coax prior to the application of the liquid tape. Afterwards there SWR did not change. Success!

The second change was to make a support system for the antenna. I decided to make this an "Apartment" antenna. I went with 3/4 inch PVC available from any home store. The radials provide the ground, no additional grounding is needed (such as from a metal mast). See the attached picture. All sections of pipe were glued with PVC glue, except for a few location to allow disassembly and cable run replacement. The ground plane just sits in the end of the pipe. The SO-239 could be set in RTV but I wanted to allow the antenna to be removed and the coax replaced if needed. I ran 18 feet of RG-258 coax inside the descending vertical section of pipe. 2/3 the way down I inserted a coupling into the pipe. The pipe and coupling was glued on the top segment. The bottom section of pipe is not glued to allow the pipe to be dissembled and the coax removed. The pipe has a notch cut out of the pipe to allow the coax to exit (a 45 degree wye would have worked better but I could not find one in 3/4 inch at the local store; a 90 degree was too sharp to allow the PL-259 to exit the vertical pipe). The bottom stand is not glued at the center Tee on the floor level horizontal runs to allow for disassembly of the unit.



The white PVC was spray painted black to allow it to be stealthier. I had this in this antenna in the dining room a full day before my wife noticed it.

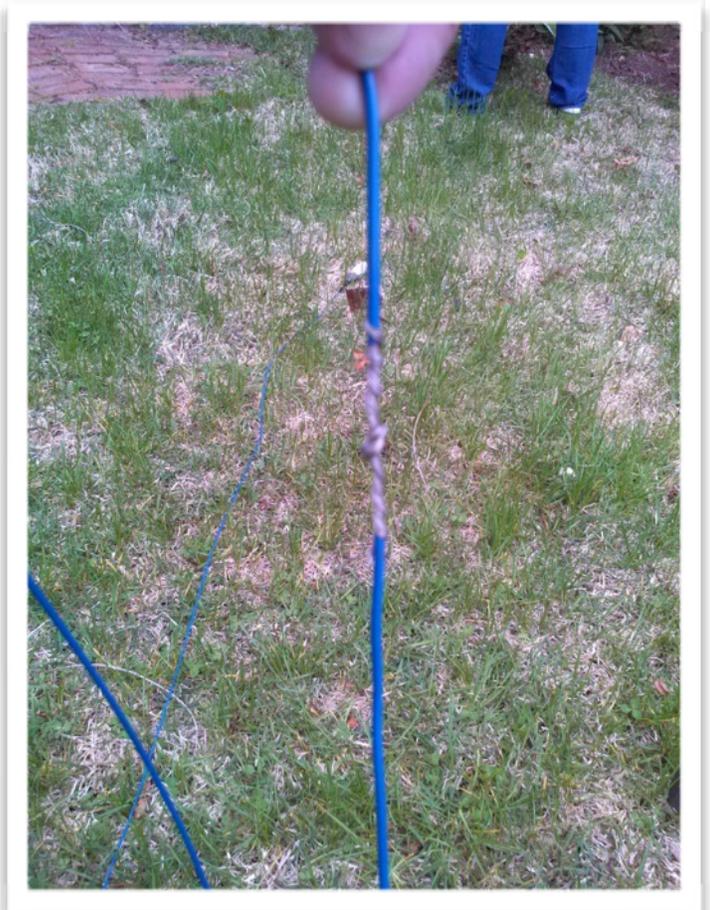
As a side note, I was skimming through some back issues of QST (I joined ARRL and accessed the electronic versions). There was an article in the March 2013 issue describing building this type of antenna. Their antenna was for 1,200 MHz. Mine was scaled for 442 MHz. The methods of construction are very close. The article described using the crimp connectors for the ground radials, which was a solution that I used. Just goes to show you that other Hams have run into similar situations in projects. The old adage holds true "you have to learn from the mistakes of others since you can't make them all yourself". Sharing your experiences is important.

## Wire Antennas for HF

Nick Franco KF2P

I came home to find my end fed random length wire antenna laying in the yard. Yep – It snapped again. Even though I have play in the wire and rubber bungees on each end, wire stresses with all the tree branch movement and wind. The repair to the antenna was simple, easy, and quick. I cut out the section that was frayed and stressed – about 14 inches. I then stripped the insulation back about 3 inches on each piece of wire. Simply tie a nice tight square knot and wrap the excess back over each wire from the knot back. Good as new. How long is my antenna now? I still have no idea, but it's about 16-18 inches shorter than it was before it snapped ☺

Next task, and a little more difficult, was to get the thing back up in the tree. A fresh water fishing pole and three good sized washers on the line and a few attempts at casting the washers over the correct branch or area of the tree and I was almost home. I cut the fishing line and tied it to the end of some nylon thin line and pulled that over the tree. The other end of the Nylon line was tied to the end insulator of my antenna wire. After some navigating and tangles; oh yeah, and a tick crawling up my pants leg, I was ready to reconnect my bungee to the insulator. So it took a little longer than expected, but it's fixed and working perfectly again. A quick check on 40 meters revealed almost flat SWR without retuning. You just have to love wire antennas.



The photo is not clear, but it shows the repair to the wire. The only other thing I did to it was wrap it with electrical tape, so it doesn't get caught on every little branch, twig, and leaf on the way back up the tree. I don't solder these repairs. That would create a break point where the solid soldered knotted area changes back to the stranded wire. I have found just leaving them raw is a longer lasting fix. It will break again, and again, and I'll just keep repairing it until it's too short to operate properly ☺

Good luck with your antenna pursuits and repairs. Try not to over complicate things. Wire antennas are expendable, that why they are so popular. Oh yeah, the other set of feet in the photo belong to my wife, who was looking up into the tree annoyed that I was wasting time “playing” with my wire instead of cutting the lawn, or doing something “useful” for her ☺ Gotta love this hobby.

**Marconi Day**



**Calendar**

**June 17th at 12 noon**

Club meeting onsite at the Shack.

**June 1st**

LIMARC HAMFEST  
Briarcliffe College in Bethpage.

**June 28th and 29th**

Field Day. Onsite at the Gazebo

**SKYWARN Training Class**



**Contributors**

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**YOUR NAME GOES HERE**

Let's face it, clubs are more fun when people participate. Share your HAM moments with us by writing a short blurb for the NEWSLETTER. Just send me your article or chicken scratch. It's all good!