

# The SPARK GAP

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## PRESIDENTS CORNER

by Gale, WD9HFT

We have many things going on over the summer so please review the newsletter and check the web often so as not to miss any events. How do you feel about having a picnic in place of the July meeting? Please let me know after reading the information in this Spark Gap issue. I hope everyone has a great summer.

## CVARC MEETING MINUTES

by Ron, W9RJW

The June 17, 2004 meeting at Connell's II at the airport was called to order by President Sorum at 7:24 PM CDT. The Secretaries minutes of the last meeting and Treasurer's report were approved as read with \$260 being the balance as of that date. Only business brought up the voting on the BYLAWS which has been scheduled for the July meeting. New business included the discussion of registration of the website "w9cva.org" and a in depth explanation of Hosting of the website. The new CVARC 3'X8' banner was discuss and on display. The club "thanks" go out to John Balow for funding for this project (\$200.00) which really show our presents at events. Business size club QSL cards were discuss and Ron Anderson W9RMA is spearheading this project. The club association with the Chippewa Falls PD in connection with siren tests and Skywarn was explained. The Chippewa City Council will be made aware of this in the future after the "kinks" are all worked out. Good job Ron Anderson (Ron is now the Emergency Coordinator for Chippewa County)! The Field Day cooperative venture with the ECARC was presented. The club has decided to be involved with Farmer Technology Days which will be held this September in Bloomer. Volunteers are needed to person (man) the information booth. Those willing to help need to contact Gale Sorum. The July 22 meeting will include discussions about a Fall Fox Hunt, Fox Hunt antennas and a Grays Lake visitation team. The location for the July 22 and August 20 club meeting will be announced in the future. The meeting was closed at 8:30PM CDT

Ron Krueger, W9JRW  
Secretary

## NEXT CLUB MEETING

The next club meeting will be July 22, 2004. We would like to have a picnic. This would be a BYO stuff and a dish to pass. Start time about 6:30PM. Please email me if you could attend or not and how many would attend. Place to be determined. (Maybe my house – W9SWL)

## CLUB HAPPENINGS

The CVARC Club now has a 30"x84" Banner for display during club functions. (As displayed at Field Day). Pictures of Field Day are posted on the web.



We have another new member – please welcome Gene Radtke, AB9GK. The CVARC now has 33 members. The club Application for Membership and Interest Sheet are both posted on the web for download and submission.

The next **Fox Hunt** is on the board for **October 16**. It will be on 440 MHz. (More information to follow). The Aug 19 club meeting is being planned as an antenna-building venture at KB9VCO's location (same place we had the Mobile Antenna clinic).

Are you interested in going to **Grayslake, IL Hamfest on Sept 17-18**? This is an overnight event and will cost about \$100-150 for shared travel, lodging, and your meals. Buying anything at the event is extra ☺. If you are interested in going, and/or driving please contact Gale or me and let us know. We need to get this information in ASAP to reserve hotel rooms.

Anyone interested in submitting news line for the paper, please send it to the club email address for inclusion. What you know can also benefit others – lets share the knowledge. If you would like to author one of the major newsletter topics, they are also available.

## **AMATEUR RELATED NEWS BITES**

*by John, W9SWL*

### **ARRL News**

#### **June 25, 2004 ==>FCC TURNING BLIND EYE IN BPL PROCEEDING, ARRL CHARGES**

The ARRL says the FCC apparently has already made up its mind about broadband over power line (BPL) and "wants no bad news" about the technology. In reply comments filed June 22 on the FCC's Notice of Proposed Rule Making in ET Docket 03-47, the League called on the Commission to take "a fresh look" at BPL before enabling its deployment. Again asking the FCC to put the proceeding on hold for a year, the League recommended that the Commission in the meantime require BPL providers to conduct FCC-monitored interference testing with all stakeholders. The ARRL charged that while an overwhelming majority of comments oppose BPL due to interference concerns, the FCC continues to rely on what the League called "vacuous assurances that BPL would not cause harmful interference." Test data and a growing record of unresolved complaints indicate otherwise, the ARRL said.

"ARRL is of the view that this proceeding has been prejudged and will, in the end, be decided not on the technical issues that should control the outcome of this proceeding, but on the politics of the matter," the League commented. "Given the evidence on the Commission's table, it cannot now authorize BPL at the radiated emission levels proposed, and without substantial restrictions."

Among those restrictions, the League recommended keeping BPL altogether away from all Amateur Radio allocations, should the FCC decide to authorize BPL under its proposed rules. As an alternative, the FCC should guarantee that an interfering BPL system can be shut down immediately in the face of a valid complaint, "not after a BPL provider has taken months to discover that the interference cannot be resolved."

To date, the ARRL contended, the FCC has seemingly ignored the League's BPL technical studies as well as the National Telecommunications and Information Administration (NTIA) Phase 1 BPL study that clearly demonstrate BPL's interference potential. Five additional technical evaluations accompanied the ARRL's reply comments.

"The Commission is obligated by the Administrative Procedure Act to look for fire where it is shown a good deal of smoke," the League said. "Here there is far more than smoke in the record." Any decision in the BPL proceeding "must be supported by substantial evidence," the ARRL asserted.

The League said the results of both its studies and the NTIA's "are entirely consistent." Referring to the NTIA

Phase 1 analysis, the ARRL said it's "quite reasonable to assume that the interference potential of BPL systems to fixed HF Amateur Radio stations is on the order of 460 meters (approximately 1509 feet) from the nearest BPL device." No proposals address BPL interference mitigation for mobile stations, the ARRL noted.

While commenting extensively on—and in some instances agreeing with—the NTIA's late-filed comments, however, the League said they depict an agency that must "balance dual and, in this case, conflicting roles" as the White House telecommunications policy advocate. The League questioned the NTIA's contention that BPL is a "win-win" situation and its deployment would lead to lower power line noise.

"Not so," the ARRL countered. "Licensed radio services operating in the sensitive HF environment should not have foisted upon them a substantial interference risk from unlicensed devices or systems whatsoever." The League said replacing one interference source with another in the same bands is "not in any way beneficial."

The ARRL also faulted the FCC for neglecting to acknowledge or respond to a mounting number of interference complaints, most from amateur licensees living in BPL field trials areas. "The Commission has, as of this writing, adjudicated not a single one and has ignored repeated requests from licensed radio amateurs for even a confirmation of receipt of their complaints!" the ARRL emphasized. The League also expressed little confidence in utilities that have failed to resolve power line noise complaints to do any better with BPL complaints.

Earlier this month, the ARRL filed a well-documented and supported complaint on behalf of Jim Spencer, W0SR, in Cedar Rapids, Iowa. The League suggested such BPL complaints deserved careful analysis, but not the Commission's cold shoulder.

"What ARRL is unwilling to tolerate is the continuation of the Commission's sweeping of these complaints 'under the rug,' which is exactly what has happened in this proceeding," the League commented. The Commission must put its zeal over BPL aside and "take a fair look at them before any action is taken in this proceeding."

"The Commission has not proposed any rules which would predictably and reliably protect HF and low-band VHF radio systems from interference," ARRL concluded. "The interference resolution mechanisms that are adopted should be real, rather than merely illusory."

### **AREA HAMFEST ACTIVITIES**

*by John, W9SWL*

#### **July**

10 - Ozaukee Radio Club, Oak Creek, WI \$5

<b>Aug</b>		Jul 25
7 - Delta County ARS, Escanaba, MI	RSGB IOTA Contest	1200Z, Jul 24 to 1200Z,
7 - Brainard, MN 9AM 147.225		Jul 25
8 - Amana, IA		
8 - Cedar Valley ARC, Cedar Rapids, IA		
14 - Baraboo, WI - 7-12, Sauk Cty Fairgrounds, I90/94 Exit 92 (Hwy 12) E on Hwy 33 \$5		
28 - St. Cloud Armory 9-2, St. Cloud, MN		

**Sep**  
 9-11 Dakota Division Convention  
 11 - Rush City, MN  
 18-19 - Chicago FM Club; Lake County Fairgrounds;  
 Grayslake, IL

**CONTEST BUZZ**

by John, W9SWL

ARRL Contest Calendar can be found here:  
<http://www.arrl.org/contests/calendar.html> a more  
 complete list follows.

**JULY 2004**

RAC Canada Day Contest	0000Z-2359Z, Jul 1
Venezuelan Ind. Day Contest, SSB/CW	0000Z, Jul 3 to 2400Z, Jul 4
DL-DX RTTY Contest	1100Z, Jul 3 to 1059Z, Jul 4
Original QRP Contest	1500Z, Jul 3 to 1500Z, Jul 4
DARC 10-Meter Digital Contest	1100Z-1700Z, Jul 4
MI QRP July 4th CW Sprint	2300Z, Jul 4 to 0300Z, Jul 5
RSGB 80m Club Championship, CW	2000Z-2130Z, Jul 5
ARS Spartan Sprint	0100Z-0300Z, Jul 6
IARU HF World Championship	1200Z, Jul 10 to 1200Z, Jul 11
UK DX Contest, RTTY	1200Z, Jul 10 to 1200Z, Jul 11
FISTS Summer Sprint	1700Z-2100Z, Jul 10
ARCI Summer Homebrew Sprint	2000Z-2400Z, Jul 11
RSGB 80m Club Championship, SSB	2000Z-2130Z, Jul 14
Mid-Summer Six Club Contest	2300Z, Jul 16 to 0300Z, Jul 18
VK/Trans-Tasman 160m Contest	0800Z-1400Z, Jul 17
North American QSO Party, RTTY	1800Z, Jul 17 to 0600Z, Jul 18
CQ Worldwide VHF Contest	1800Z, Jul 17 to 2100Z, Jul 18
RSGB Low Power Field Day	0900Z-1600Z, Jul 18
RSGB 80m Club Championship, Data	2000Z-2130Z, Jul 22
Russian RTTY WW Contest	0000Z, Jul 24 to 2400Z,

**BOAT ANCHOR DOCK**

by John, W9SWL

**Part 4:** This is the last in a four part article to discuss many aspects in dealing with Vintage Radio gear.

**How can I refinish the cabinet?**

Refinishing wooden radio cabinets is no different than refinishing other wooden objects. My favorite book on wood refinishing is *The Weekend Refinisher* by Bruce Johnson. My preference, which is shared by most collectors, is to restore wooden objects without making them look "brand new" or erasing all evidence of age and use. If you strip or sand a radio cabinet down to bare wood, you may destroy its collectible value, along with its character. The same goes for applying non-authentic finishes, such as glossy polyurethane. *The Weekend Refinisher* explains how to detect what finish is on a piece and restore it authentically.

Restoring bakelite or plastic cabinets is mostly a matter of cleaning and polishing. Start with the gentlest possible means and materials, and resorting to stronger methods only if necessary. Start out with warm, soapy water, some clean, soft cloths, and a soft toothbrush for the small crannies. Cotton Q-tips and round toothpicks also come in handy for tight spots. Avoid solvents, especially when working with an unknown modern plastic. Nothing is more disheartening than watching your newfound treasure start to dissolve under your fingertips! The strongest cleaner that I use for cleaning stubborn grime is window cleaner such as Windex.

For cabinet polishing, try Novus Plastic Polish, grades #1 and #2. Novus polish is gentle enough to safely polish the most delicate plastic dial covers, yet the #2 grade does a fine job on faded old bakelite, too. Other collectors polish with various substances, such as very fine-grade automotive rubbing compound, power buffing wheels, and so on. Some collectors wax bakelite cabinets after polishing, this may not be necessary if you've done a good job of polishing. Be patient, and stick to soft cloths and elbow grease.

Cracked bakelite and plastic can be tricky to repair. Some collectors claim success with carefully flowing glues such as epoxy or cyanoacrylate ("crazy glue") into the crack, letting it dry, repeating as needed, and then very carefully sanding down any overbead with super-fine abrasive papers, finishing up with a final polish. Others have recommended a product called "Plas-T-Pair," available from Antique Electronic Supply. In dealing with cracks, you should either live with them or avoid buying a cracked radio in the first place. There's always another one around the corner!

**What's the best way to learn?**

The best learning method is probably to watch over the shoulder of an experienced repairman at work. If you join

a local collector's club, perhaps you can find someone willing to give you some pointers.

A good book on radio repair is invaluable. If you're a complete novice in electronics, try practicing on a junky radio before you tear into your treasured antique. A visit to the local thrift store may provide a suitable tube-powered patient for only a few dollars. It won't be exactly like your "real" radio, but the techniques that you learn will be generally applicable. Practicing on a junker will help you learn whether you like this activity at all. And, you can make those inevitable beginner's mistakes on a set that doesn't have great emotional or monetary value.

### **TECHNICAL TIDBITS**

*by John, W9SWL*

When you put up a dipole and its not the proper length for the operating frequency desired, do you know how to determine if it is to long or to short? Do you lower it, cut it, raise it and find it is still not correct? Have you ever worn out the rope raising and lowering the antenna trying to get it trimmed properly? Have you ever said, "I trimmed it 3 times and it is still to short?"

We all have different ways of getting a dipole to the frequency we want. Some do it faster then others. Here are some quick ways to go after the issue of length vs SWR and which way to trim. First the basic rules.

1. Always calculate the half wave desired length (468/Freq MHz). Add about 2-3% extra for trimming. Raise the antenna and measure the SWR. Find the SWR at the desired frequency and also fine the frequency of lowest SWR.
2. Always shorten an antenna by wrapping the excess wire back on the antenna wire at each end until you get it tuned properly. (If you make a mistake, you can unwrap and use the excess rather then needing to splice in more wire – (see comment about "trimmed 3 times and still to short").

**Quick and Easy Method 1:** If you are cutting an antenna for 7.250MHz and you measure the SWR and find it is lowest at 7Mhz, by simple division we see the antenna frequency is 3.5% lower then desired. So we need to raise the frequency (higher frequency means shorter antenna) and we do this by shortening the antenna by the 3.5%. Remember to trim the antenna equally on both sides of center for a dipole.

**Quick and Easy Method 2:** QST July 2001 p. 65. When assembling the antenna, place the end insulators in about 5% from the ends. Raise the antenna and let the ends hang down. Check the SWR readings at several frequencies. Trim Length = (Freq @ SWR Min) \* (Antenna length) / (Desired Freq.). Add or Subtract from both sides evenly for final length. Calculate how much to prune, and remove from the ends hanging down.

I hope these two tips will make your antenna installations quick and painless while providing you many years of enjoyment. Do you have another method that has served you – please pass it along to me.

### **ASK ELMER ??**

*by John, W9SWL*

### **CVARC OFFICERS**

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Vice President – John Balow (KB9VCO)

Secretary – Ron Krueger (W9JRW)

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