



CAPERS June 2007

Candlewood Amateur Radio Association - Post Office Box 3441 - Danbury, CT

Visit us on the Web at <http://www.danbury.org/cara>

President – Frank Etzler – N8WXQ - phone - 860-350-3523
Vice President – Harlan Ford – KB1ILY – phone- 203-798-8096
Secretary – Martha Babbitt – KB1IES - phone - 860-350-8804
Treasurer – Bill Webb – W1AFX - phone - 203-775-0536



Meeting: Friday, June 8 at 8 p.m.

From the President

CARA is about to begin a new year once again. Elections for officers and directors are being held this month. Please be sure to attend the meeting to cast your vote.

Nominations remain open until the voting begins. Do not hesitate to volunteer for a leadership position. This summer we will lose Martha, KB1IES as she and Don will move out of the area. We thank them for their important service to the amateur community through their efforts with ham radio education. CARA members extend their best wishes for the future.

Field Day is the fourth weekend in June. This month's program will be devoted to field day preparations. Your participation in CARA's field day activities is encouraged. Field day is great fun and helps CARA remain prepared for emergency communications. I look forward to seeing you at the meeting and at Field Day.

The new FCC rules make upgrading easier than ever before. The CARA VE session will be held on Saturday, June 9.

73 de Frank, N8WXQ

Join Us at Stony Hill FD!

Club meetings and classes are held at the Stony Hill Fire Department, Route 6, Bethel, across from the Stony Hill Inn.

Directions: I 84 Eastbound, Exit 8 (Route 6), straight through the light at the exit, East on Route 6, past Target, about a half-mile on the right. I 84 Westbound, Exit 8 (Route 6), merge left past the gas stations, reversing direction and heading East on Route 6, past Target, a half-mile on the right. Or take Exit 9 on Route 84 Westbound to Route 6

Westbound and continue several miles. Cross Old Hawleyville Road. The Fire Station will be on your left. CARA meetings are held on the second Friday of the month beginning at 8 p.m., with Informal “rag chewing” beginning at 7:30 p.m.

Scheduled VE Sessions for 2007

- June 9
- September 8
- December 1

All are Saturday sessions, and all will be held at the Stony Hill Fire Station starting at 11:30 a.m. Doors will be open about 11 a.m. For information on what to bring with you and to confirm you plan to attend a session, please contact Frank N1PE at frsileo@att.net

Field Day 2007

We'll be reviewing the details for the June 22-23 Field Day 2007 program at the June CARA meeting. John W1JMA will demo the notebook network and run through the logging program. Here's a recap of the highlights for Field Day 2007:

- Friday June 22- 5 p.m. at Cadigan Park, Brookfield-- Begin setup. Launch lines and 2 loops then break for pizza.
- Saturday 9a.m. - 2.p.m., site setup of food tent, equipment, operating position tents, computers, operating stations
- Saturday 2 p.m. Field Day officially begins 24-hour period of operation
- Sunday: event continues until 2 p.m. followed by breakdown of site and cleanup.



We're operating two complete stations (ICOM 7000's) for this event and will need 1-2 operators for each station 'round-the-clock for both operation and logging. In addition, we need folks for general help and to greet and explain to any public visitors the purpose of Field Day...who we are and what we're doing.

Please mark your calendars now for this important club event!

More Coax Available...

Here's a great opportunity to line up some first class coax for your summer antenna projects!



Ken, KD1DD, will again be bringing top-of-the-line RG213-type 50-ohm, 97% braid coverage coax, to the June meeting, along with LMR400 cable--which is a low-loss cable especially suitable for VHF/UHF applications. Ken also has on order, and hopes to have at the meeting, top-quality PL-259 UHF connectors: teflon coated with gold pins.

This is the combination of top quality coax and connectors you want for installing long-lasting antennas in difficult-to-reach outdoor locations.

Read All About It...

The June issue of CONTACT! is up at <http://www.arrl.org/pio/contact/2007/06/> There's LOTS of new info in it – great ideas for Field Day, Kids Day and other door openers for your use. Special guest articles and how-to-do-it tips for folks all over.

There's listings of the new materials available This is one you definitely do not want to miss!

(Tnx to Pete, KZ1Z, for the "heads up" on this and the following ARRL announcement...)

PR Resources

Once again the ARRL has produced a full set of coordinated materials for PIOs, clubs and other Amateur Radio organizations to use in presenting our story to the non-ham public.

This year, the theme is on Emergency Communications and ham radio's opportunities to meet the concerns of families and communities in a crisis. Included are:

- A 30 second video Public Service Announcement (PSA) based on Hurricane Katrina operations. This dramatic video has already garnered hundreds of thousands of dollars in free airtime on broadcast and cable systems. It is available both as an mp4 and DVD.
- Audio PSAs for use by radio stations promoting Amateur Radio.
- A wonderful new brochure on Emergency Communications which explains ham radio's opportunities to the public. The brochure has received many compliments for its design. With the help of the Dayton Amateur Radio Association, it is available for only \$6/100 – enough to cover the costs of shipping.
- "Talk on a Disk" – a new concept putting targeted PowerPoint presentations, audio and video, speaker's notes and other items all on one CD specially made to go with the brochure and giving anyone the ability to make a first-class presentation about Amateur Radio to groups, clubs and non-ham gatherings.

- Katrina – The Untold Story is a 5 minute mp4 file for computer screen presentations to individuals showing served agency leaders discussing the role and importance of Amateur Radio.

- A special new Web Site at <http://www.emergency-radio.org/> www.emergency-radio.org which describes Amateur Radio, emergency activities and how to get involved, attain your own license, and find local groups. Information about how to order, download or receive these and other PR materials is available on the Web at <http://www.arrl.org/pio> <http://www.arrl.org/pio>

CARA September Hamfest

Sunday, September 16 is the date of the annual CARA Hamfest—the only hamfest in Western Connecticut!

Yes, it sounds like it's a long way off, but it's amazing how quickly time flies. Following our June Field Day (which is this month) the Hamfest will be a scant two months away. The last page of this month's newsletter is a flyer promoting this major event. Tell your friends on the air, make copies of the flyer and distribute them or post them in prominent places. Please help get the word out --and mark the date on your calendar!

Antenna Plans Have You Thinking in Loops?

*(Here's an interesting take on loop antenna design from **KA1FSB**. His home page lists a convenient loop antenna calculator. You can get all the details by visiting his website, listed at the end of the article. –Ed.)*

"Have you been thinking about experimenting with a loop antenna, but are not sure you have enough space to put one up? Have you heard that loops come in

many "shapes and sizes" and are confused about what might work best for you at your particular location? Would you like to see "at a glance" if you have room for a loop? The simple calculator on this web site uses the well-known standard formula for determining the total wire length in feet for a single element (single turn), full wave [loop antenna](#), (length = 1005/MHz). It also calculates measurements for:

- A **square** or **diamond** loop shape,
- A **rectangular** shape with a 2:1 ratio, (where the horizontal is longer than the vertical length by a factor of 2)
- A **delta** or **triangular** loop shape,
- A **circular** shape...

in the HF and VHF Amateur Radio bands. NOTE: All results may be presented in either feet or meters. The purpose of the calculator is to give you a quick overview of the feasibility of "squeezing" a loop into your available yard or apartment space. The calculator yields a reasonable approximation of dimensions, to within 5% over the amateur bands, using typical wire gauges ranging from #12-18 AWG. (It does not calculate inductance, impedance, or even "Q" factor values since it is assumed that tuning will be accomplished using open feeds and a transmatching device, which should more than adequately compensate for the range of construction and materials variations as measured by these parameters.)

As a reminder, it always displays the "standard" input (feedpoint) impedance for a **full wave** loop, which of course will vary slightly depending on materials and location. And, a few extra features, a selector for dimension types, meters, or feet; and a mid-band calculation, have been added to the JavaScript code.

These measurements should be able to tell you **at a glance** if you have room for a loop! I hope so... loops make great antennas! (NOTE: You may deduct 29.3% (0.293) from all vertical lengths if you decide to slope the antenna away from the vertical plane by 45 degrees; see table below. Don't forget to include an additional height above ground for the lowest horizontal element when determining the total vertical dimension, usually six or seven feet for safety reasons, i.e., people.)

To see how the calculator works, click on the "Random Sample" Button. Or, enter a value in the megahertz text box, and then click on "Calculate Dimensions" to see the values you are interested in...

Repeatedly pressing the "Mid-Band" button displays the wire lengths, and design dimensions, for the center frequency in each of the amateur bands in turn. (A single press for any given frequency, occurring within a valid amateur band, will also show its mid-frequency point for that band range. The symbols ">" and "<" indicate out-of-band conditions, hence no mid-band frequencies are calculated...)

NOTE: Wire lengths for a mid-band frequency may prove to be the most practical since you may tune above or below to obtain full coverage over the entire band! (The probable exception here would be the 160m band. Tuning down from the mid-point might place a tuner box under considerable electrical "strain" and would not be recommended. So, you can't "cheat" at 160m, you will most likely need the full loop for its lower band edge frequency.) “

Courtesy KA1FSB:
<http://ka1fsb.home.att.net/loopcalc.html>

The Ongoing BPL Saga...

The ARRL has filed a federal appeals court brief outlining its case and requesting oral arguments in its petition for review of the FCC's broadband over power line (BPL) rules. The League has petitioned the US Court of Appeals for the DC Circuit to review the FCC's October 2004 Report and Order (R&O) in ET Docket 04-37 and its 2006 Memorandum Opinion and Order.

In its brief filed May 17, the ARRL contends, among other things, that the FCC's actions in adopting rules to govern unlicensed BPL systems fundamentally alter the longstanding rights of radio spectrum licensees, including Amateur Radio operators. "For the first time ever, the FCC has permitted new unlicensed devices to operate in spectrum bands already occupied by licensees, even if the unlicensed operations cause harmful interference to the licensees," the League said in stating its case. "The orders under review reverse nearly seven decades of consistent statutory interpretation and upset the settled expectations of licensees without so much as acknowledging the reversal, let alone justifying it."

The ARRL contends that the FCC orders under review "jeopardize the license rights of ARRL's members and other license holders by authorizing providers of a new device -- Access Broadband over Power Lines, or 'BPL' -- to send radio signals across the electric grid in the frequencies the license holders occupy, but without having to obtain an FCC license."

The ARRL alleges that the Commission not only withheld its internal studies until it was too late to comment but has yet to release portions of studies that may not support its own conclusions. The FCC has claimed that these are "internal communications" that it did not rely upon in reaching its decision to adopt the BPL rules. "If, as seems more likely, the Commission actually considered and rejected the information contained in the redacted portions of its studies, then it

had a duty to disclose the information and reasons for rejecting it. Either way, the FCC acted improperly." The League also takes issue with what it argues is the FCC's "arbitrary and capricious" adoption of a BPL emission measurement standard that's unsupported by the record in the proceeding and ignores contrary evidence. Additionally, the ARRL says, the FCC rejected a proposed alternative without even considering it.

Said ARRL CEO David Sumner, K1ZZ, in his "It Seems to Us . . ." editorial for July QST: "The Commission's penchant for ignoring contrary evidence is illustrated even more vividly with regard to how quickly RF emissions are assumed to decay as one moves away from the source. This is important because if the signal is assumed to decay more quickly than it really does, the interference potential of the emissions will be underestimated." As Sumner notes, the FCC has claimed that "many parties" have presented experimental data supporting a 40 dB per decade (10 times increase in distance) rate. "In fact, there is no such evidence in the record -- and empirical evidence supporting a lower number was ignored," he asserts. The League argues that the FCC ignored evidence that restricting BPL to the 30-50 MHz frequency range would have obviated interference to long-distance HF communications without causing problems for public safety services.

The ARRL brief asserts that, for the first time ever, the FCC "has authorized the operation of unlicensed devices that it concedes interfere with licensed devices" and has declared that such devices "may continue operating even where proven to cause interference."

(Excerpt)

Digital Communications Conference

September 28-30, 2007 - Hartford, Connecticut

The ARRL and TAPR Digital Communications Conference is an international forum for radio amateurs to meet, publish their work, and present new ideas and techniques. Presenters and attendees will have the opportunity to exchange ideas and learn about recent hardware and software advances, theories, experimental results, and practical applications.

Topics include, but are not limited to:

Software defined radio (SDR), digital voice, digital satellite communications, Global Position System (GPS), precision timing, Automatic Position Reporting System® (APRS), short messaging (a mode of APRS), Digital Signal Processing (DSP), HF digital modes, Internet interoperability with amateur radio networks, spread spectrum, IEEE 802.11 and other Part 15 license-exempt systems adaptable for Amateur Radio, using TCP/IP networking over amateur radio, mesh and peer to peer wireless networking, emergency and Homeland Defense backup digital communications, using Linux in amateur radio, updates on AX.25 and other wireless networking protocols.

Three-Day Conference:

(Friday, Saturday, Sunday)

- Technical and introductory sessions will be presented all day Friday and Saturday.
- Friday Evening Social. Join others at the conference for a Friday evening social get together.
- Saturday evening banquet with an invited speaker that concludes with award presentations and prize drawing.

- The ever-popular [Sunday Seminar](#) that focuses on a topic and provides an indepth four-hour presentation by an expert in the field.
- For more information and conference details check out www.tapr.org/dcc.html

CARA Minutes for April

The regular meeting of CARA was held at the Stony Hill Fire House on April 13th at 8:00 p.m. The meeting opened with a presentation by Mark N1MG on modifying CBs for amateur bands and a presentation by Frank N8WXQ on a QRP kit.

The business meeting was called to order at 9:03 p.m. A motion was made, seconded, and so voted to accept the Secretary's minutes. The Treasurer reported a balance of \$7,848. A motion was made, seconded, and so voted to accept the Treasurer's report. There are 25 paid members and 10 who have not paid.

The QSO Party will be the first weekend in May. Members will meet at the Exit 9 parking lot at 8:30 AM on Sunday, May 6th to go to Newington and operate W1AW. A chairperson is needed for the June meeting.

Flyers are printed and need to be distributed for the Hamfest. Various members took some to give out at other hamfests in the area.

Field Day – Oscar KB1LQV - Power point presentation of stations, tents, support, equipment. Motion was made, seconded, and so voted to allow \$150 for any additional expenses that might come up. MJF manual tuners from Oscar and Frank, handout sheet with information (Barry will prepare for next meeting), invite people. Assemble 6 p.m. Friday to put up antenna

Meeting adjourned at 10 p.m.

--Respectfully, Martha Babbitt, KB1IES



Sponsored by Candlewood
Amateur Radio Association

Western CT Hamfest



Sanctioned
by ARRL

- **Sunday, Sept. 16, 2007**
(Rain or Shine)
- Edmond Town Hall
45 Main St (Rt. 6)
Newtown, CT
- Set-up 7 a.m.
- Doors open 8:30 a.m. - 12:30 p.m.

**Talk-in on
147.300+
PL 100**

- Admission \$5 (under 10 free)
- Tables \$12.50 (includes 1 admission)
- Tailgating \$8 (includes 1 admission)
- Ham Radio Equipment
- Computer Gear
- Door Prizes
- Refreshments
- Free Parking

Battery Exclusive!
Big batteries at
rock bottom prices!

Commercial Vendors Include

- QuickSilver Radio Products
- Ham Source
- Radio Oasis

Don't Miss the Raffle!
Win a Brand New HT.

Seminars

- Mechanical TV - Those were the days
- Airmail - How it works, incl demo
- Satellite Communications - How to do it
- NVIS Antennas (courtesy of ARRL)

Contact Information

- Joe de Groot - AB1DO: (203) 938-4880
- Jim Ritterbusch - KD1YV: (203) 775-1946
- Email: ab1do@arrrl.net
- Web site: www.danbury.org/cara

Directions

Take exit 10 off Rt. 84. Go West onto Rt. 6 (westbound make a right, east bound make a left). Approx. $\frac{3}{4}$ mile at flag pole make a right onto Rt. 25. Edmond Town Hall will be approx. 100 yds on left.

Candlewood Amateur Radio Association (CARA) Hamfest, Sept. 16, 2007
c/o Joe de Groot - AB1DO, 30 Sunnyview Drive, Redding, CT 06896. Phone # (203) 938-4880

Name _____ Daytime Phone # _____

Address _____ Evening Phone # _____

Please reserve _____ indoor tables @ \$12.50 each. Amount Enclosed \$ _____

I need _____ / do not need _____ electricity. Please make checks payable to CARA