



CAPERS

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Issue: May 2004

Meeting this Month: Friday, May 14 at 8 p.m.

President's Message

The New England QSO Party is now history.

The crew who went to W1AW had a lot of fun getting on the air. I hope that each of you took the opportunity to make at least a few QSO's. W1AW had about 360 QSO's and an approximate score of 20,500. We now look forward to Field Day in June. I received a certificate for my modest effort in 2003. I was the only Litchfield county station on the air.

The May meeting will concern antenna performance and antenna modeling. Yours truly will present the program. I hope that my remarks will ignite your interest in antenna modeling. I think you

will begin to see that many lessons can be learned about antenna performance from such modeling.

We continue to seek nominations of 2005 officers. Do not hesitate to give George, N1GS your nominations for the June election.

Congratulations to George, N1GS, Ken, KD1DD, and the others who helped them in straightening out the repeater. The phone patch is now fully operational. Club members are welcome to use it.

I look forward to seeing you at the May meeting.

73 de Frank, N8WXQ

Meetings

CARA's regular meetings are held on the second Friday of each month (NOTE: April 16 exception), beginning at 8 p.m., at St. Paul's Church Hall, Brookfield Center, CT. Informal "rag chewing" begins at 7:30 p.m.

WA1JGA Sheds Light on Interference Issues at April Meeting



Dave Coelho, WA1JGA, was the featured guest speaker at the April 16th CARA meeting. Dave, who is supervisor of distribution lines for CL&P, reviewed some of the power line connection and equipment problems that can cause annoying radio frequency interference – independent of the BPL interference issue that looms on the horizon.

Dave explained that interference can be generated by many factors. Power lines supported by various types of ceramic insulators often can abrade from friction, or corrode from rain and airborne contaminants. The resulting motion can generate arcing and generate radio frequency interference, particularly in dry weather.

He brought with him examples of old-style



ceramic insulating devices, as well as examples of newer poly/fiberglass insulators that are much more resistant to abrasion and arcing.



Dave mentioned that the power company is replacing old-style insulators as work progresses and lines and insulators are replaced, but that it's a work in progress and it will take some time before all old-style insulators are replaced.

But if your shack is troubled by static or other pulse interference, the source may be more local than your nearby power company supply pole. Dave suggested that folks trying to identify annoying sources of interference be prepared to do a little in-house detective work. He suggested carrying a flashlight and an AM radio (excellent detector of random interference!) to locate the source of troublesome interference in your home or shack. One of the first steps is to shut off all the mains in the house. If the interference

disappears, then the source was somewhere in your home and is not being generated by an outside source! The next steps? -- gradually turn devices on and off (using the AM radio as a “sensor”) to help locate offending appliances or devices. Dave noted that some of the major offending sources of local interference include rotary dimmer switches, small switching power supplies for wireless phones, small motors and electronic devices, and even canine invisible fences.



Finally, Dave pointed out that CL&P takes its responsibility seriously and actively works to solve power company-related interference issues. These can include faulty transformers, cracked insulators, loose wire clamps, weak or loose grounding devices, and defective or damaged street lamps and light sensors. Interference reports can be called in to 1-800-286-2000. Callers should give the approximate location of the utility pole or street lamp in question – ideally by tying it to a nearby house number or other landmark.

Our thanks to Dave for sharing his experiences and advice on how to cope with the “real and present” annoyance of the various kinds of device and power line interference that can add to the challenge of pulling weak RF signals out of the ether!

Field Day June 26-27

Start charging those gell cells, packing your portable transceivers, and rolling up those portable antennas – the CARA Field Day is a little over a month away! This year we’ll again be setting up at the Brookfield Town Park. Please check in with John, W1JMA, if you can help with set-up or take-down, or plan to operate over the weekend. This is a real fun club event and a great introduction to contesting. Don’t miss it!

Heads Up! May 15 Emergency Drill!

As you may have heard, an emergency preparedness drill is planned for Saturday, May 15 and local ARES teams are expected to provide communications support as needed. Allen, W1AGP, reports the most current information can be found on the www.ctares.org website. In general, the “disaster” areas will all be in the Hartford area and surrounding towns. ARES members in surrounding towns will be called on for manpower needs. The drill “events” are expected to take place early Saturday morning. The drill is expected to conclude by about 2 p.m. on Saturday the 15th. Details are on the ARES email reflector and on the CTARES website.

CARA Hamfest September 12

Mark your calendars and spread the word: the annual CARA Hamfest will take place Sunday, September 12, at the Edmund Town Hall, Rt.6, Newtown. Talk in will be on the 147.30+ repeater. See the flyer in this month’s CAPERS and feel free to make copies and help promote this important event. This is the club’s major fundraising event of the year. And, it’s great fun! See you there!

Nets

CARA Weekly Net: Sunday nights at 7:30 p.m. 147.30+ (PL 100)

WestConn Net: Nightly at 8:30 p.m. 147.18+ (PL 114.8)

Tips Net: Tuesday evenings at 7:30 p.m. on 146.73- (PL77) (linked statewide).

R-Com Weekly Net: 145.47- (PL100) Thursday Evenings, 8 p.m.

ConnARES Area One (North) VHF Net: Mondays, 8 p.m., bi-weekly, alternately on 147.30+ (PL 100), or 146.73- (PL 77 or 100).

Conn ARES Issues Net: 3.965 Mhz +/-, Thursdays @ approx. 6:15 p.m. (following CT Phone Net)

FCC Proposes Wide-Ranging Changes to Amateur Service Rules

The FCC has released an "omnibus" Notice of Proposed Rule Making (NPRM) that seeks comments on a wide range of proposed Amateur Service (Part 97) rule changes. The FCC also denied several petitions for rule making aimed at altering portions of the Amateur Radio regulatory landscape and ordered minor changes in Part 97.

The NPRM is a result of a dozen petitions for rule making, all filed more than a year ago and some as long ago as 2001.

Comments on the proposals put forth in WT Docket 04-140 are due by Tuesday, June 15, with reply comments by Wednesday, June 30. Among other changes, the FCC has recommended adopting the ARRL's "Novice reformatting" plan, which can be seen on the web at, <http://www.arrl.org/announce/regulatory/reformatting/>.

"Because the ARRL petition addresses the operating privileges of all classes of licensees on these Amateur Service bands, we believe that the ARRL petition provides a basis for a comprehensive restructuring of operating privileges," the FCC said.

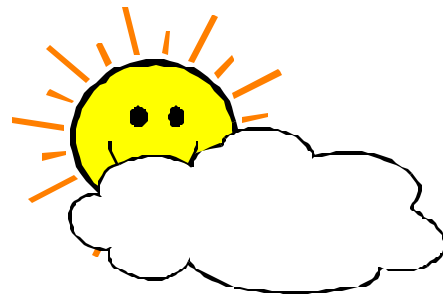
The ARRL referenced its Novice reformatting proposal in its recent Petition for Rule Making, RM-10867, which, along with three other petitions remains open for comment until April 23.

The FCC also has proposed essentially eliminating its rules prohibiting manufacture or marketing of Amateur Radio Service power amplifiers capable of operating between 24 and 35 MHz. The current rules "impose unnecessary restrictions on manufacturers of Amateur Radio equipment and are inconsistent with the experimental nature of the Amateur Service," the FCC said.

The FCC proposed amending Section 97.201(b) of the rules to permit auxiliary operation on 2 meters above 144.5 MHz, with the exception of the satellite subband 145.8 to 146.0 MHz, in addition to frequency segments already authorized.

The FCC proposed extending the bands available for spread spectrum experimentation and use to include 222-225 MHz as well as 6 and 2 meters. Current rules limit SS emissions to frequencies above 420 MHz.

Among other things, the FCC also proposed to prohibit acceptance of more than one application per applicant per vanity call sign; permit retransmission of communications between a manned spacecraft and its



associated Earth stations, including the International Space Station; allow current amateurs to designate a specific Amateur Radio club to acquire their call sign in memoriam; eliminate Section 97.509(a) of the rules, which requires a public announcement of volunteer examiner test locations and times; and add to Section 97.505(a) to provide Element 1 (5 WPM Morse) credit to any applicant holding a Technician license granted after February

14, 1991, and who can document having passed a telegraphy examination element.

The Commission ordered some changes in Part 97 without requesting comment. It ordered, among others, the revision of the definition of an "amateur operator" in Section 97.3(a)(1) to reflect that entry in the FCC Universal Licensing System (ULS), not a license document, determines whether a person is an Amateur Radio operator.

The FCC adopted a technical change to specify that the mean power of any spurious emission from a new amateur station transmitter or amplifier operating below 30 MHz be at least 43 dB below the mean power of the fundamental emission.

Among other petitions, the FCC turned down a proposal to establish distinct CW and phone segments in the 160-meter band. Also denied were petitions that would have imposed restrictions on the time, length or transmission frequencies of bulletins or informational transmissions directed at the amateur community and a request to add to the special event call sign system certain call sign blocks designating territories and possessions that lack mailing addresses.

The FCC Notice of Proposed Rule Making, on the web at, http://hraunfoss.fcc.gov/edocs_public/attachm/attach/FCC-04-79A1.doc, in WT Docket 04-140, is available on the FCC Web site.

CARA 2004 VE Schedule

Make a note of the CARA-sponsored Volunteer Exam (VE) schedule for the remainder of the year:

- Saturday, June 5
- Saturday, September 18
- Saturday, December 4

These VE sessions are held at St. Paul's Church in Brookfield Center, the site of our regular monthly meetings. Registration for these exam sessions begins at 11:30 a.m. There is no pre-registration, but an e-mail in advance of the session, or telephone call,

would be appreciated so the examiners know how many potential candidates to expect. The current fee for new license exams or upgrade exams is \$12. Be sure to bring with you two forms of ID – at least one with your photo. Also bring the original AND copy of CSCE's and/or amateur license. The registration form will be supplied at the session.

Questions or comments? Check with Frank, N1PE, frsileo@att.net, 203-438-0218 (Ridgefield CT).

FCC Okays RF Identification Tags at 433.5 to 434.5 MHz

The FCC has adopted a somewhat limited proposal to permit deployment of RF Identification (RFID) tags on the 70-cm band at much greater duty cycles than current Part 15 rules permit for such devices.

Among other applications, RFID tags are used to track shipments and packing containers. A Third Report and Order (R & O) in ET Docket 01-278--approved April 15 but not yet released--follows a 2000 petition by SAVI Technology to revise FCC Part 15 rules to accommodate such devices in the vicinity of 433 MHz. The ARRL has consistently opposed the proposal, but the FCC just as unflinchingly has gone along with it. FCC Office of Engineering and technology (OET) Chief Ed Thomas said RFIDs provide important public benefits.

"This device is designed to increase homeland security at ports, rail yards and warehouses," Thomas told the FCC open meeting. "It will foster the development of more powerful and advanced RFID systems that can identify the contents of shipping containers and determine whether tampering has occurred during shipment."

In requesting Commission adoption, OET's Hugh van Tuyl provided the broad strokes of the Part 15 rule changes, which, he said, would apply specifically to shipping containers "in commercial and industrial

areas." In certain cases, he asserted, current Part 15 requirements aimed at preventing interference to licensed services "may unnecessarily constrain the operational range of RFID systems as well as the speed and quantity of data that can be transmitted."

The Third R & O would increase the maximum radiated field strength permitted for such devices as well as the maximum permissible duty cycle--from one second to one minute. The longer duty cycle would allow an RFID to transmit the contents of an entire shipping container, van Tuyl said. "We therefore believe there will be no significant increase in the potential for interference to authorized services," he concluded.

The Third R & O reflects certain accommodations to the National Telecommunications and Information Administration (NTIA), which expressed "grave concerns" about the proposal in 2002.

The R & O limits the operating band for such RFID tags to 433.5 to 434.5 MHz, instead of the 425 to 435 MHz SAVI originally asked for. It further prohibits operation of RFID tag systems within 40 km (about 25 miles) of five government radar sites. Manufacturers of 433 MHz RFID systems would have to register the locations of their system base stations to aid in interference resolution.

Since SAVI first approached the FCC in 2000, ARRL has maintained that the RFID tags the company proposed would represent a significant source of potential interference to sensitive receivers and be incompatible with ongoing requirements of incumbent services.

More than 130 amateurs filed comments in opposition to SAVI Technology's RFID tags proposal, and most supported the ARRL's position that the proposed rules were flawed and should not be adopted.

ARRL Emergency Communications Level II Course Registration

Registration opens Monday, May 10, 12:01 AM EDT (0401 UTC), for the Level II Emergency Communications on-line course (EC-002). Registration remains open through the May 15-16 weekend or until all seats are filled—whichever occurs first. Class begins Tuesday, May 25.

Thanks to our grant sponsors--the Corporation for National and Community Service and the United Technologies Corporation--the \$45 registration fee paid upon enrollment will be reimbursed after successful completion of the course.

During the May registration period, approximately 100 seats—an approximately 33 percent increase--are being offered to ARRL members on a first-come, first-served basis.

To learn more, visit the ARRL Certification and Continuing Education (C-CE) <<<http://www.arrl.org/cce/>>> Web page. For more information, contact Emergency Communications Course Manager Dan Miller, K3UFG, dmiller@arrl.org, 860-594-0340.

ARRL EmComm Seminar June 12

The ARRL will offer a free Amateur Radio Emergency Communications seminar on Saturday, June 12.

The seminar will be held at ARRL HQ, 225 Main Street, Newington CT, from 12 noon to 4 p.m. and is open to all interested hams.

The seminar will NOT include the Level I course itself, but will include background information, group discussion of multiple disaster scenarios, testimony from EmComm leadership, ARECC mentors and students, and more. Course manager is Dan Miller, K3UFG (see contact info above...). Come and share your experience, whatever your affiliation with amateur radio emergency

communications. Seating is limited. Let Dan know if you plan to attend.

Level I Registration ...

Seats may still be available for the ARRL on-line Level I Emergency Communications course (EC-001). Registration was to remain open through the May 8-9 weekend or until all available seats have been filled--whichever comes first. Class begins Tuesday, May 18.

During the May registration period, approximately 300 seats--an increase of more than 75 percent--are being offered to ARRL members on a first-come, first-served basis. Check availability by visiting the ARRL Certification and Continuing Education Web page <<<http://www.arrl.org/cce/>>> to register. Or contact Course Manager Dan Miller, K3UFG, dmiller@arrl.org, 860-594-0340.

Advanced Spotter Skywarn Training

An Advanced Spotter Class will be held Thursday, May 20, at the East Haven High School auditorium, from 7 to 10 p.m.. The school is located at 35 Wheelbarrow Lane in East Haven. Talk-in is on 147.505 (1-meg split, PL 77). You must have a current spotter ID number to attend this class.

Seating is limited for both the above class. For reservations contact Glenn, N1HAW, n1haw@arrl.net, or Jim, N1GPB, at N1gpb@arrl.net.

New Book on VoIP for Hams

Jonathon Taylor, K1RFD, is the author of *VoIP: Internet Linking for Radio Amateurs*, a new publication being offered by the ARRL via its Web site.

Jonathon is a member of CARA and of GNARC, His book is a primer on the growing use by hams of VoIP – or Voice over Internet Protocol – in conjunction with their radios for Internet-assisted long-distance

communications. These hams use the Internet as the relay between their base stations, handhelds, and mobile transceivers.

Jonathon's book is a guide to the four primary VoIP systems currently used by hams: EchoLink, IRLP, eQSO and WIRES-II. The book is designed for beginners who want to get started but also contains more in-depth material for those experienced with the new technology.

If you're interested in this book, which is published by the ARRL, here are the particulars: ISBN 0-87259-926-4, #9264, \$17.95.

ConnARES Area One Reminder

ConnARES Area One (North) VHF Net is currently meeting bi-weekly, on Monday nights at 8 p.m. The net will be held alternately on the CARA 147.30+ (PL 100) repeater, and on the New Milford repeater, 146.73- (PL 77 or 100). Announcements will be made at the beginning of each net confirming the repeater in use for that evening.

For additional information contact Harlan, KB1ILY, hford01@snet.net or Bill, W1WJB, DEC, Area One, Bill@StudioOne-CT.com.

Editor's Note:

Just a reminder that we're always looking for interesting features and news articles for the CARA CAPERS. Contact the editor, Barry, KA1JDD, barry@connollyco.com, or call: 203-748-1033.

Western CT Hamfest

Sponsored by Candlewood Amateur Radio Association (CARA)

- **Sunday, September 12, 2004**
- **Edmund Town Hall, Route 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)**
- **Tailgate \$8 (includes 1 admission)**
- **Ham Radio Equipment**
- **Computer Gear**
- **Door Prizes**
- **Refreshments**
- **Ample Parking**
- **Rain or Shine**



**Candlewood Amateur Radio Association (CARA) Hamfest, September 12, 2004
c/o Bill Schaefer – N1PJG, 63A Taylor Avenue, Bethel CT 06801, (203) 798-2831**

Name: _____ Phone # (daytime) _____

Address: _____ Phone # (evening) _____

Please reserve _____ tables, at \$12.50 each. I need _____ do not need _____ electricity.

Amount enclosed: (\$ _____). Please make checks payable to C.A.R.A.