



SIGNAL



de NINC

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This Month's Meeting

This month's meeting will have a Field Day theme. The presentations will cover Field Day, typical operating modes, logging systems and software.

Last Month's Meeting

Last month's presentation was a Software Medley. It was a brief overview of a number of pieces of software that may be of interest and useful to members. Five to ten minutes was spent on each piece of software.

Stan KD1LE presented on software by James Tonne who has made available a software package called Elsie which is for Filter Design. Tonnes web site also has software for amplifier design, matching circuit design, vertical antenna analysis, and meter face design. The software is available at tonnesoftware.com



Courtesy of KD1SM

Les N1SV talked on W6EL propagation prediction software for HF and its uses when chasing DX. The software is available at <http://www.qsl.net/w6elprop/>



Courtesy of KD1SM

Dave N1MNX gave an Echolink software presentation that he and Ken K1KEY put together. The software is available at <http://www.echolink.org>. Dave has other information available at his Web site <http://www.n1mnx.com>

Bob W1XP showed a version of 5SPICE software that runs on Windows to do circuit analysis. The software is available at <http://www.5spice.com>

Bob also showed a satellite tracking software called SatScape that showed where all the amateur satellites are and what their coverage would be. The software also plots weather satellites.

The May Board meeting had discussed a Field day budget proposal and brought it to the general meeting where it was approved. The total budget approved was \$360. The breakdown is shown below.

2005 Field Day budget proposal:

- \$150 food
- \$10 fuel
- \$60 RV fuel & dump fee
- \$120 Field Day pins
- \$20 coffee & donuts
- \$360 total

Present at the May meeting were: N8VIM, KA1VOU, N1SV, W1XP, KD1LE, N1ZRG, W1JMM, KB1KEF, K1YTS, N1MNX, KD1SM, W1ZBT, KB1MBR, KB1ESR, K1KEY, AB1CV, WA1TAC, WR1Y, KB1JLA, WA1ULK

From the President

Summer is coming on quickly and the last big event before we break for summer is almost on us. Of course I'm talking about Field Day. Many members have put a lot of work into preparing for Field Day from the technical side but that is only half the challenge. Set up, take down, and the actual operating takes many more people. So come on up to the Field Day site in the apple orchard on Heald St. and support the members that worked so hard making this happen. You can help set up or take down and you can put your name on one of the station operator sheets to reserve a period to operate for an hour or more some time during the 24 hour event.

The only other summer activity is the NVARC cook-out which will be hosted by Den KD2S again this year. The time and date are yet to be selected.

Stan KD1LE

Adopt A Highway

The May road cleanup took place May 22nd. The weather was gloomy but the rain held off (mostly). The crew was composed of Ralph KD1SM, Jim AA1PO, Bob W1XP, and Stan KD1LE. Although we had a small crew we covered most of the two miles and picked up nine bags of trash.

The next cleanup will be Sunday June 19th.

We meet at the traffic island on the east side of the Nashua River at 9:00 AM. The normal clean up day is the Sunday after the club meeting.

Bandpass Filter Project

With all the other bands covered we have now turned our efforts to the 160 meter band. The first filter has been designed and tested by Bob W1XP and now the second unit is being built to verify the design.

Only four of these filters are being built since not everyone uses this band and the filter is very large physically.



The 160 meter filter has three large coils.



The use of these filters at Field Day or other events should keep out of band interference between stations to a minimum. Since they work on both transmit and receive they reduce the out of band output of a transmitter and the out of band input to a receiver so they can have better results than a receive only filter.

Public Service

Groton Memorial Day Parade took place June 1st. Bob AB1CV was the Parade Marshal. Stan KD1LE provided a mobile audio system for the parade at various locations along the route. Russ WR1Y provided a larger audio system for the ceremonies at the Groton Cemetery.

Parker Classic

The Parker Classic Road Race was run on Devens Sunday May 15th.



Above Stan KD1LE covers the assignments.

This is the 9th year we supported the Parker Classic Road Race. Much has changed on Devens in those years and as a result the courses have changed almost yearly. We supported the 2 mile and 5 miles races. They are run on two unique courses which requires everyone to shift positions as quickly as we can after tracking the last runner though each checkpoint. Besides Tee shirts we were treated to lunch hot off the grill after the races.

Thanks to the following people who supported the races. Larry KB1ESR, Ralph KD1SM, Gary K1YTS, Nancy KB1KEF, Joel W1JMM, Dave N1MNX, Bruce KC1US, Stan KD1LE and Bob W1XP.

Field Day

Field Day preparations are well under way. Remembering the filter project started back in January with some discussions preceding even that.

During April and May Bob W1XP and Stan KD1LE started site planning trying to figure out where to put the stations to accommodate the addition of the digital station. The objective was that people and stations should be close together while antennas should be far apart. At least they wanted them to be as far apart as practical.

In order to simplify operating the CW station the designers went to a "tuner per antenna" system several years ago. Even though this eliminated the hassle of tuning when changing bands or antennas it involved more antenna matching boxes and there was the set up and first tune up on site. The addition of band pass filters caused the switching to become more complex. Some antennas like tri-banders serve multiple bands. If two antennas serve a single band they each need to have the same band pass filter unless an additional layer of switching is added. This would mean switching at least two switches to change to certain bands. The latest system is a self contained package including, tuners (top two shelves), band pass filters (bottom left, and switch (bottom right. Below is the CW Station secret weapon at the Skunk Works somewhere in the Nashoba Valley.



The eight port switch (bottom right) in combination with two banks of coax switches mounted on the rear of the unit switch the correct tuner, filter, and antenna combination for the antenna choice selected on a remote switch at the operating position. The antennas are connected to the rear panel where open wire and coax connectors are mounted.



On June 1st, almost month before Field Day, the site preparation crew of Bob W1XP and Stan KD1LE went up to the orchard and mapped out the likely set up. Then they mowed the paths and perimeter of the main road where the stations will be set up and the paths and perimeters of the antenna sites which are off the road at various spots. Cutting the two foot high grass was slow going.

The goal was to mark out everything so that several weeks before Field Day a larger crew could go up and clear the predefined areas. June 4th, after Saturday breakfast, a bigger crew of Bob W1XP, Larry KB1ESR, Bruce K1BG, Dave N1MNX, and Stan KD1LE went up to finish the preliminary cutting. With two lawn tractors and three push mowers we hoped to make short work of the mowing. After one tractor caught fire, one mower wouldn't run and the second tractors mowing deck started shaking violently we finished up with the push mowers shortly after noon.



Some touch up will need to be done Field Day week but at least we will only have to cut lawn high grass not a two foot high hay field.



Above the last to leave after the mowing Bob W1XP (L) and Dave N1MNX (R) with the mowers all loaded in the trailer.

Board Meeting Notes

The Board meeting took place June 9th at the KD1LE QTH. The following items were discussed.

Meeting programs

Earl received a general mailing from the Grotonfest Committee asking if we needed space. He will contact them and confirm our regular spot. We still need someone to run the event.

The NVARC Cookout will be at Den's QTH. Den will notify us with a time and date. Tentatively in August. Approved \$25 for cookout expenses.

Report on Field Day preparations. Need more operating support for the stations. People to help setup, takedown and operate.

Ralph gave the Treasurers Report.

Road Cleanup June 19th

Dave showed Field Day signs and map.

Bob distributed an article about suggested activities clubs can do.

Stan received an Invitation to speak on Ham Radio at the Pepperell Senior Center. Unfortunately the date turns out to be after Field Day. Lynda N1PBL modified one of our invitation letters into a flashier flyer with some clipart and will drop it off this week.

Earl reserving our space for Grotonfest.

Discussion on supporting the Radio Merit Badge at local Scout troops. Bob and Dave will check to see if there is anything we can do to help.

Flea Markets and Such

June 19 MIT
July 17 MIT

PSLIST

Date	Location	Event
Contact	Tel/Email	
July 2	Princeton MA	Longsjø Bicycle Race
Ralph KD1SM	kd1sm@arrl.net	978-582-7351
July 3	Fitchburg MA	Longsjø Bicycle Race
Ralph KD1SM	kd1sm@arrl.net	978-582-7351

Advertisements

Tell them you saw it in the Signal. Advertisers should contact the NVARC Treasurer for information.

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\$June Treasurers Report\$

Income for May was \$50 in membership dues, \$2 from ARRL membership renewals, \$1.15 in bank interest, \$37 from the book raffle, \$5 for PowerPole connectors, and \$24 for patches. Expenses were \$14.80 for newsletter postage leaving a net income of \$104.35 for the month.

The Squannacook River Runners looked back through their records and noticed that in the transition of organizers in 2003 they had not made a donation to our community fund. They graciously gave

us a \$125 donation for our support that year. This has been added to the Community Fund. An additional donation of \$45 was made to the Community Fund for Now You're Talking book donations.



Current balances:

General fund	\$4573.68
Community fund	\$2079.95

As of 9 June we have 50 current members and twelve renewals outstanding. Please check your newsletter mailing label for your expiration date or look for the email reminder I send you if you are overdue.

If you are not yet an ARRL member, please consider supporting the national organization for Amateur Radio. I will be happy to assist you in submitting your membership application. In addition to receiving QST monthly, you have the satisfaction of knowing you are helping the efforts to protect our access to precious spectrum. By joining or renewing your membership through the Club, the Club receives a portion of your dues.

NVARC Club Net

The NVARC Club Net for May 23rd was run by Stan KD1LE.

The theme of a recent net was hurricane trivia. Did you know when they started naming tropical storms? How many lists of names are used? Or, how many hurricanes in the past century have caused a billion dollars or more in damages? You would if you had checked in!

Checking into the net were Joel W1JMM, Dave N1MNX, Bob W1XP, Larry KB1ESR, Richard KB1MBR, Ray K1JKN and Les N1SV.

The May 30th net was run by Larry KB1ESR and in attendance were Dave N1MNX, Bob AB1CV, Les N1SV, Ray K1JKN, Bob W1XP. Topics were "what you did on Memorial Day" a run down of Field Day preparations by Bob W1XP.

The June 6th net was run by N1MNX and in attendance were Bob W1XP, Stan KD1LE, and Richard KB1MBR. The net covered up coming club activities particularly Field Day.

The net is a good place to bring information for the club and questions or discussions. The net meets at 8:00 PM Monday evenings on the 442.900 N1MNX repeater.

ARRL Letter

DAYTON HAMVENTION: "GENERATE SOME HEAT" TO SPUR POLITICAL ACTION

Amateur Radio licensees need to start taking personal responsibility for prodding politicians to pay attention to hot-button issues affecting the service, a Dayton Hamvention forum heard May 20. ARRL Hudson Division Director Frank Fallon, N2FF, told the League's Grassroots Lobbying Forum that when it comes to Congress, individual radio amateurs can help shape their own future.

"Political lobbying is something people don't really want to hear about," Fallon conceded. "But politics controls everything we get." Fallon used the broadband over power line (BPL) proceeding as an example of how politics can overcome logical, technical argument. Fallon heads up the League's nascent grassroots lobbying initiative with assistance from Great Lakes Director Jim Weaver, K8JE, and Northern New Jersey ARRL Section Manager Bill Hudzik, W2UDT.

Fallon focused many of his remarks on a US House of Representatives resolution, HRes 230, sponsored by Arkansas Rep Mike Ross, WD5DVR, and introduced earlier this year. The resolution calls on the FCC to "conduct a full and complete analysis" of BPL radio interference potential incorporating "extensive public review and comment," and--in light of that analysis--to "reconsider and review" the BPL rules it adopted last October. If approved by the full House, the non-binding resolution would express the requests as "the sense of the House of Representatives."

The job at this point is to get cosponsors for the resolution and see it pass the House, and that won't happen "unless we can generate some heat," Fallon said.

"So, if we are hanging out in the basement and doing nothing but building rigs and working DX, we're going to be victims" of the political process, Fallon told his audience. He explained that ARRL, as a nonprofit IRS Section 501(c)(3) organization, must adhere to strict limitations on its lobbying activities. It cannot endorse political candidates or contribute to

political campaigns, he explained. "You can," he pointed out. "We can't."

Fallon said one way ARRL members can get vocal about legislative issues of importance to Amateur Radio is to visit, write, e-mail or fax their US representatives or US senators. "Your letters, e-mails and visits to district offices give us entrée to legislators in Washington," he said. "It won't happen without your help." Personal visits to lawmakers at their district offices, he said, help to "put a face on ham radio" for politicians.

The focus of the ARRL Grassroots Lobbying initiative will be on measures that deal with FCC matters, because Congress oversees the Commission.

Weaver told the gathering that grassroots lobbying is aimed at helping Amateur Radio to fashion its own future. Hudzik reiterated the importance of personal involvement. "The more we're seen in a positive light, the easier it will be," he concluded.

In the "ARRL Goes to Washington for You" forum that followed, ARRL President Jim Haynie, W5JBP, continued in the same vein. Haynie debuted the ARRL's new video, "ARRL Goes to Washington," narrated by network news legend Walter Cronkite, KB2GSD.

The video--produced by Dave Bell, W6AQ, Alan Kaul, W6RCL, and Bill Pasternak, WA6ITF, but not yet available--depicts the League's more recent efforts in official Washington and on Capitol Hill to convey the importance of Amateur Radio as a national resource. Haynie and other members of League officialdom spend several weeks a year promoting visibility for Amateur Radio and the ARRL's views--as indicated by its membership--on pending legislation or FCC proceedings.

The video also makes the point that ordinary citizens must get involved and orchestrate change by getting the attention of lawmakers confronted with hundreds of constituent interests and issues.

"We've got to ratchet up our presence," Haynie said, urging more individual amateur participation in the political process. Individual licensees also are voters, and lawmakers are quite aware that there are radio amateurs in their districts, he said.

Invitees to a reception May 19 honoring prominent League donors got a sneak preview of the "ARRL Goes to Washington" video. The showing drew a hearty round of applause and kudos to producers

Bell, Kaul and Pasternak, who were on hand for the occasion.

Reception guest speaker Tony England, W00RE--the second person to use Amateur Radio from space--told the more than 100 reception guests that the US needs to boost interest in engineering, and he sees Amateur Radio as one component in making that happen.

ARRL SIGNING MEMORANDUM OF UNDERSTANDING WITH CIVIL AIR PATROL

The Civil Air Patrol (CAP) and ARRL will sign a Memorandum of Agreement during Dayton HamventionR, May 20-22, where CAP plans to field a major presence. The agreement will spell out guidelines for CAP--the US Air Force Auxiliary, and ARRL--the national association for Amateur Radio, to better use and integrate their resources during communication exercises and emergencies.

"Civil Air Patrol has one of the largest unified communications networks in the nation," said CAP Lt Col Maurice Thomas, N3ADV. "Federal, state and local agencies call on CAP members every day for communication support in search-and-rescue missions and disaster relief." Thomas says CAP, which has been in existence for more than 60 years, needs "implementers" for its communication technology, and highly skilled ham radio operators are "a natural resource."

Dayton Hamvention will play host to ARRL's 2005 National Convention, featuring ARRL EXPO 2005 in Hara Arena's Ballarena. The League also will maintain a retail booth and relaxation area at its traditional North Hall location.

CAP National Commander Maj Gen Dwight Wheelless, will join ARRL President Jim Haynie, W5JBP, at Hamvention to sign the formal agreement. The ceremony will take place Friday, May 20, during the "ARRL Goes to Washington for You" forum at 10:15 AM in Room 2 of Hara Arena. Wheelless called radio amateurs "highly skilled and knowledgeable about the latest in communications technology."

ARRL Media and Public Relations Manager Allen Pitts, W1AGP, points out that volunteerism is an Amateur Radio tradition. "We look forward to educating our members about CAP, and CAP members about ARRL," he said. "From Morse code to high-speed digital, a wire up in a tree to satellite communications, hams love to make it happen."

Pitts says the ham radio slogan "When all else fails . . ." is more than mere words. "They know ham radio communication works again and again when other systems fail," he said. "One way or another, hams get the message through."

Radio communication plays a major role in all of CAP's operations too--including homeland security, damage assessment, search and rescue, and disaster relief. It was key in CAP's impact assessment missions during last year's hurricanes in Florida, ice storms in Arkansas and New York, and floods in Missouri.

Pitts notes that during the course of many emergency response situations, Amateur Radio Emergency Service (ARES), Radio Amateur Civil Emergency Service (RACES), and other Amateur Radio emergency groups find themselves working side by side with CAP members.

"This formal agreement between our two organizations will acknowledge that in a disaster, we all work for the common good," he said.

During Hamvention, CAP members hope to educate radio amateurs about the opportunities available to civilian volunteers through Civil Air Patrol. CAP will occupy Booth 154-155 in the Ballarena. CAP's Wisconsin Wing will display its new 35-foot state-of-the-art Mobile Command Center. The unit was custom-built for CAP by Winnebago Corporation thanks to a US Department of Homeland Security grant.

National Headquarters Chief of Communications Malcolm Kyser, KG4G, says CAP maintains a dedicated nationwide HF and VHF network on federal government frequencies. "We operate over 550 VHF repeaters spread across the country as well as HF, tactical VHF/UHF, data and commercial satellite applications," he explains. "The CAP network is a 24/7 emergency services resource, which we rely upon to support an almost unlimited variety of missions."

A nonprofit organization with some 60,000 members, the Civil Air Patrol performs the vast majority of continental US inland search-and-rescue missions under the direction of the US Air Force Rescue Coordination Center. CAP volunteers also perform homeland security, disaster relief and anti-drug trafficking missions at the request of federal, state and local agencies. CAP will hold its national conference August 17-20 in St Louis. Visit CAP on the Web <<http://www.cap.gov/>>.

CW OPS WHIP WHIPPERSNAPPER TEXT MESSENGERS ON NATIONAL TV

It may have been Friday the Thirteenth, but it was a lucky day for Morse code--and particularly for veteran CW contest ops Chip Margelli, K7JA, and Ken Miller, K6CTW. During a May 13 appearance on NBC's *The Tonight Show with Jay Leno*, the pair was able to pass a message using good old fashioned Morse code more rapidly than a pair of teen-aged text messengers equipped with modern cell phones. The victory, which replicated a similar challenge that took place recently in Australia, has provided immense encouragement to Amateur Radio's community of CW operators, who been ballyhooed the achievement all over the Internet. The text messaging team consisted of world text-messaging champ Ben Cook of Utah and his friend Jason. Miller said afterward in a reflector posting that the CW team won fairly handily.

"Ben was just getting ready to start entering the last two words when I was done," he said on the Elecraft reflector in response to various questions he's received following the TV appearance. "I already knew that 28-30 WPM would easily keep us in front of even the current world [text messaging record holder, and also it is the fastest speed that I can make nice readable copy on paper with a 'stick' [pencil]." Miller said it was decided he'd be on the receiving end because he wasn't distracted by the noise in the studio.

Margelli recalls that he was sending at 29 WPM. "I believe the goods were suitably delivered," he told ARRL. "CW and old guys rule!"

What the viewing public didn't know was that Margelli and Miller had, in Miller's words, "smoked 'em every time" during three pre-program rehearsals. Even so, during the real thing, when Miller raised his hand to signal he'd copied the CW message successfully, Jason's jaw dropped. None of the players had any idea of the text they'd be sending, Miller noted. The message? "I just saved a bunch of money on my car insurance."

As with many *Tonight Show* bits, this one involved a member of the audience, a young woman named Jennifer who predicted--incorrectly as it turned out--that text messaging definitely would top 170-year-old

Morse code. She walked away with a gift of restaurant tickets anyway.

Margelli says the CW team used Yaesu FT-817 transceivers--one of his own and another owned by Dan Dankert, N6PEQ. Backup units--not needed--were provided by HRO; Margelli's wife Janet, KL7MF, manages an HRO store. They ended up using 432.200 MHz as an operating frequency in order to avoid RFI from the plethora of TV equipment in the studio and to avoid interfering with NBC's gear. They ran the little transceivers at their lowest power level and with the antennas disconnected--although they were mounted on the back of each unit--no problem given the close proximity involved. Margelli sent with a Bencher paddle.

To add a little atmosphere to the affair, NBC producers attired Margelli and Miller to look like 19th-century-era Western Union or railroad Morse telegraphers. The costumes came complete with green visors, white shirts, sleeve garters, vests and bow ties. The teenaged SMSers wore T-shirts and jeans.

Cook told Leno that he'd managed to send a 160-letter message to his friend using his cell phone's short message system (SMS)--the formal term for text messaging--in 57 seconds.

A member of the Morse Telegraph Club and a QRP enthusiast, Miller said he'd been using CW for 38 years. Margelli told Leno he'd been using Morse "for 43 years in ham radio," a phrase Leno echoed. That was the only plug Amateur Radio got during the appearance on the show's "Dinner for 4" segment. Miller says that during rehearsal, the pair had come up with a few lines to promote ham radio and telegraphy, but they were cut during the final dress rehearsal in the interest of making the segment fit its allotted time slot.

During the Australian competition in April, a Morse team consisting of 93-year-old former post office telegrapher Gordon Hill--the sender--and 82-year-old Jack Gibson--the receiver--topped 13-year-old SMSer Brittany Devlin. In that event, Hill spelled out the message in full, while Devlin used text-messaging shorthand. In that competition, held at the Powerhouse Museum in Sydney, Hill took 90 seconds to send the message, 18 seconds faster than Devlin's message took to reach her friend's cell phone.

Miller encouraged all who enjoyed the CW-vs-text messaging segment on NBC to contact *The Tonight Show* to let the producers know about it--with an eye

toward having the network schedule a more elaborate segment "next time."

"Thanks for the kind comments from all," Miller concluded, advising "let's keep on having fun!--It is a hobby after all."

Commented Margelli to ARRL: "I completely agree with my fantastic teammate, Ken Miller. It was a lot of fun, just like ham radio, and the show also delivered an important, if subtle, message about the benefits of the 'basic' communication infrastructure that Amateur Radio provides."

Contest Calendar and DXpeditions

The information for a DXpedition can be quite detailed and may include bands, dates, number of stations, and times of day they plan to work certain continents so I can not list it all here. But if a country or prefix is of interest you can get more information at www.425dxn.org.

Contests June

18-19 West Virginia QSO Party
25-26 Field Day
28-29 CQ WW WPX

DXpeditions

Call	Location	Until
9V1CW	Singapore	2008
8Q7WP	Maldives	09/05
5H3HK	Tanzania	March 2006
ZD8I	Ascension Is	March 2006

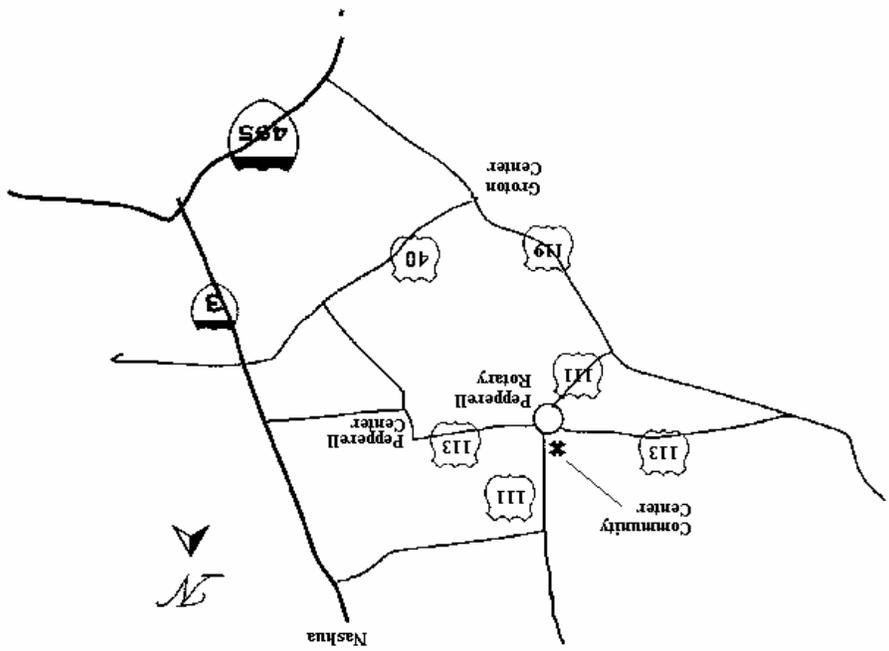


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147.345 + 100 Hz Repeater
53.890 - 100Hz Repeater
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