



SIGNAL



de NINC

August 2009 Volume 18 Number 8

This Month's Meeting

There is no monthly meeting in August.

Lantern Battery Challenge rules will be handed out at the September meeting. Applications and payment will be collected.

The next road clean up will be Sunday August 23rd. In June we changed the time to get an earlier start and leave more of the day free. We will meet at the river common on 119 at 8:00 AM.

The vote for funding the Pepperell Community Center was successful so it should be open for our meetings in the fall.

Wear your badge to the meeting so new members can tell your name and you can introduce yourself to them. It may be worth your while.

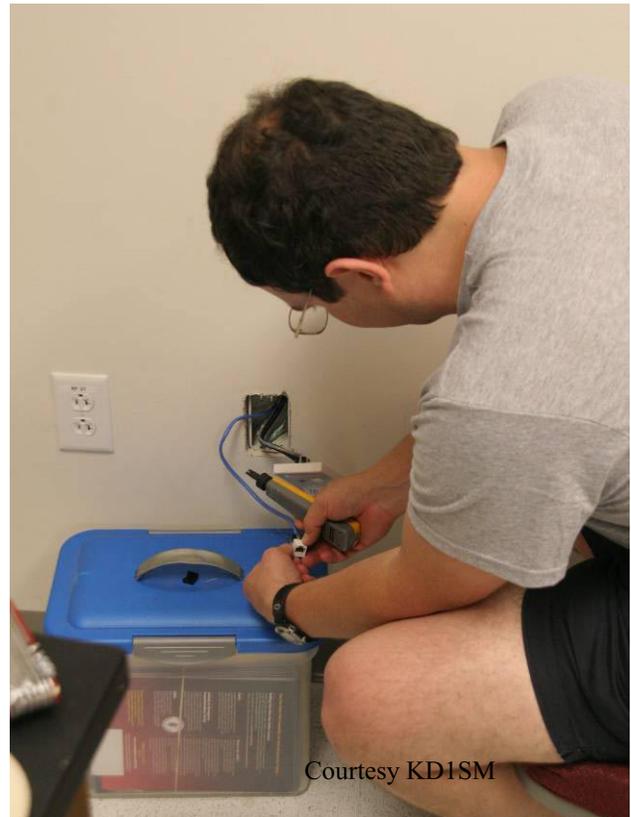
Need a Ride?

Do you need a ride to the club meetings? Do you know someone who does? If you do please contact Bob W1XP 978-448-6559 and leave a message. We'll see that you get to the meeting.

NVARC Field Day

In setting up for Field Day the computers were to be networked for redundancy and sharing of data. We could have run network cables around the room between the four logging computers but it was decided to use the built in network drops. But we were not being successful in getting the computers to communicate.

One by one Jim N8VIM rewired each drop and the connectors in the phone closet. In addition the small home office hub in the phone closet was replaced with a 24 port commercial network switch.



Courtesy KD1SM

By the end of Field Day all the drops in the meeting room were operational. Thanks to Jim for all his hard work. Because of his efforts we clearly left the facility in better condition than we found it.

Field Day

Lost and found

Larry is missing a two pound red handled sledge hammer.

Bob found a pair of gas pliers.



Courtesy K1NKR

Larry KB1ESR arranged for the Lost Lake Fire Station and a little help behind the fire station to get the antenna halyards installed. Thanks to Larry and the Groton Fire Department.



Courtesy KD1SM

Bob W1XP directs the unrolling and hanging of the antennas he built for Field Day. Since the decision was to use no towers and all wire antennas Bob W1XP built multi-wire multi-band antennas for the CW, SSB, and GOTA HF stations. They were 40/80 meters and 10/15/20 meters



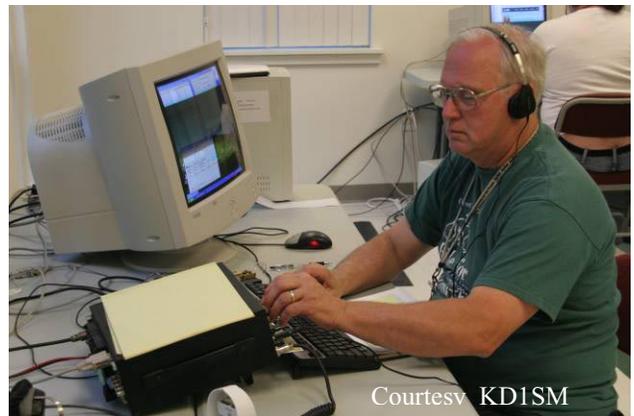
Courtesy KD1SM

The operating positions were set up around the fire station training room. Off to the left of the photo is the RACES radio area. From left to right Bob W1XP, the CW station, Skip K1NKR, the SSB station, Jim and Roland at the GOTA station and to the right the V/UHF station.



Courtesy KD1SM

Larry KB1ESR at the SSB operating position.



Courtesy KD1SM

Stan KD1LE at the CW Station

Memory Ride for Alzheimer's Research uses ARES

On Saturday July 25 six NVARC members and seven other ARES radio operators provided support for the Alzheimer's Association Memory Ride.



This event is a fund raiser for research into treatments for Alzheimer's disease. Over 200 bicyclists started at Museum Field in Devens in the early morning hours to follow one of four courses and return back to Devens in the afternoon. The longest of the four courses was 125 miles traversing the communities of Ayer, Harvard, Lancaster, Bolton, Lancaster, Berlin, Boylston, West Boylston, Clinton, Sterling, Leominster, Shirley, Groton, Townsend, Pepperell, Hollis, and Dunstable. The shortest course was 25 miles through Ayer, Harvard, Bolton, Lancaster, and Shirley.

The radio operators were stationed at 6 pit stops and in 5 support vehicles plus two operators at Devens for net control and event coordinator shadow.

The day was bright and sunny and all riders returned safely, most under their own power but a couple via SAG vehicle dispatched by the Hams. Lori Coburn, Development Coordinator for the Massachusetts Chapter of the Alzheimer's Association and Memory Ride event coordinator, expressed huge thanks on behalf of the Alzheimer's Association to all of the Hams who helped: Tom K1JHC, Gary K1YTS, Larry KB1ESR, Jim KB1JKJ, Jason KB1KEG, Kathy KB1LPW, Rick KB1LYJ, Ross KB1MGD, Dave KB1MVN, Stan KD1LE, Ralph KD1SM, John KK1X, and Mark WB1ARZ.

Photos Top Left: Stan KD1LE at NCS. Top Right: Stan with Lori Coburn (right) – Event Coordinator and Laura (left) – assistant to Lori.



This is the second year for this course in north central Massachusetts and the second year that the ARES community has provided communications support. Lori Coburn says she could not imagine doing these events in the future without Amateur Radio support.

Thanks to the Central Massachusetts Amateur Radio Association for permitting us exclusive use of the 146.97 W1BIM repeater in Paxton for the day. Thanks also to Paul Andrews WB1EWS and Dave Peabody N1MNX for providing their 147.315 and 53.89 repeaters as backup.

Smokey 65th Birthday Special Event Station

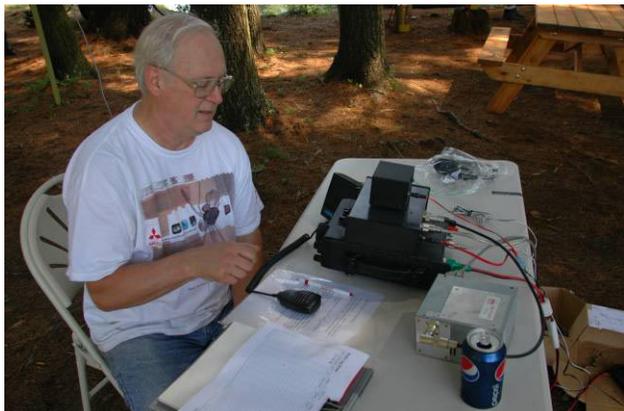
The Central Mass Amateur Radio Club operated a special event station celebrating Smokey the Bears' 65th birthday from Wendell State Forest in Wendell Massachusetts.



Smokey coming out of the CCC tent.

The State Department of Conservation and Recreation (DCR) had Smokey, displays on the Civilian

Conservation Corp (CCC) and Antique Chevrolet Truck



Stan KD1LE at the 10 meter station

We operated 6, 10, and 20 meters Field Day style. You can also see behind the Pepsi can above an NVARC 10 meter filter. The 10 and 20 meter stations used our band pass filters. This allowed both stations to operate in close proximity. Last year at the same event they didn't have filters and were unable to operate both stations simultaneously.



Smokey stands back while they cut the cake for his 65th birthday

ARRL 600 Meter Experimental Program Expanded

On July 28 the FCC authorized the expansion of the ARRL 600 meter experimental program to 43 stations. This program has been in existence since 2006. It has the stated purpose of demonstrating the use and advantages of a new amateur radio operating band in the 500 kHz region. This expansion doubles the number of stations and expands the geographic coverage to include Alaska and Hawaii.

In addition the frequency range was expanded with the addition of eight kilohertz total in two bands from 495 to 499 kHz and 501 to 510 kHz. The previous assignment was 505 to 510 kHz. Permitted operating modes are CW/QRSS, PSK-31, FSK-31, and MSK-31. Hopefully additional modes will be available in the future. Limited mobile operation is now authorized. Only communication between other experimental stations in this country is authorized at this time. With the possibility of coverage world wide under good conditions this was a disappointment, but will hopefully be changed in the future. In the mean time the program is to demonstrate the advantages of an amateur assignment in this frequency range in preparation for the world radio conference now scheduled for 2012. At that conference the assignment of a small amateur band in this now unused frequency range will be on the agenda. This frequency range for years was used by marine radio using CW transmission for communication with ships at sea. This function has not been taken over by satellites and other means.

For those interested in more information on this program go to <http://www.500kc.com> or talk to me. With the approach of fall and better conditions the activity in the 500 KHz region of the spectrum will be increasing. And with twice as many stations the level of activity will be higher. 73 Bob W1XP

PSLIST

Every event needs communications volunteers

August

15 Mt Washington Bicycle Hill Climb, Cliff N1RCQ

September

11-13 MS Challenge Walk, Jim KB1JKJ

13 Hop-Boston Jimmy Fund Walk Steve W3EVE

26 Berkshires MS Bike and Hike, Jim KB1JKJ

27 Westminster 250 Anniversary Parade, Bill N1UZ

October

11 Boston BAA Half Marathon, Bob WA1IDA

See www.n1nc.org/Events for the latest

Board Meeting

Cookout August 15th at K1NKR. Skip will have chips, soda, condiments, and the grill. Bring your grub. Timeline 11:00 to 4. Budget approved for cookout.

Discussion of upcoming meeting presentations. November and February meetings open.

Ralph submitted the Treasurers report for the newsletter. Starting up the book raffle with some new books.

Discussed the equipment donated to the club by Robert Jack N1OFX. John KK1X is going to sort, test, and report back. John will send N1OFX a thank you letter and we will add him to the newsletter list. Then we will decide what we might want to keep and what someone might buy. One VHF radio will be going to the repeater digital link. A list of equipment that will be sold will be available in September. Bids will close as of the October meeting.

Some award opportunities were discussed.

Pumpkin cake was served.

In attendance were Ralph KD1SM, John KK1X, Stan KD1LE, Bob W1XP, Skip K1JKR.

Adopt A Highway

Our next Road Cleanup is August 23rd. We'd like to see a few more participants. Eight is the right number to make quick work of the entire section we do. We are starting an hour earlier than in the past so the cleanup doesn't bite into the day as much so we are starting at 8:00 AM. Hope to see you there.

Treasurers Report

Income for July was a \$30 food donation for Field Day. Expenses were \$17.60 for newsletter postage leaving a net income of \$12.40 for the month.

Current balances:

General fund	\$4,265.55
Community fund	\$2,949.41

As of 6 August we have 44 members who are current with their dues and 22 renewals outstanding. If you don't know your renewal date, please check the roster circulated at the monthly meeting or ask Ralph.

If your ARRL membership is ready for renewal, you can let Ralph mail it in for you and the Club will get a commission. If you're interested in joining the ARRL and do so through Ralph the Club will get a bigger commission. ARRL membership checks should be made payable to NVARC so that our commission can be deducted before we forward your membership to Newington.

Ralph KD1SM

FT8900 Programming

Stan has updated the "standard" frequency matrix for the FT8900 mobile radio programming software. The current frequency matrix is dated 090304. If your radio has been programmed in the last few years it has the date code in the alphanumeric display of memory location number one. If you tune to memory one and press the LOW button for two seconds the numeric frequency display will change to alphanumeric. The date code is year, month, and day. The previous version was 080225.

If you cannot select memory number one it means you programmed the radio yourself or it was programmed with the standard matrix before 2007.

Stan will bring the computer and programming cables to the meeting. If you want to get your rig memory updated bring it and the power cable.

ARRL Letter

THE ARRL TEACHERS INSTITUTE WRAPS UP SUCCESSFUL SUMMER SESSIONS

In 2004, the ARRL held its first Teachers Institute on Wireless Technology <<http://www.arrl.org/FandES/tbp/ti.html>>. That summer, nine teachers came from across the country to learn how to bring this exciting technology back to their classrooms. Six years later, 93 teachers from 29 states attended eight sessions of the ARRL Teachers Institute. "The ARRL Teachers Institute continues to be a resounding success," said ARRL Education Program Coordinator Mark Spencer, WA8SME. "These teachers, upon returning to their classrooms, will reach out to approximately 3000 students, using new approaches to instructing the science of radio through the many hands-on activities that they learned about during the Teachers Institute."

This year, the eight sessions of the Teachers Institute were held at various venues in Arizona, California, Florida, Michigan, New Mexico and Ohio, with the last session taking place at ARRL Headquarters in Connecticut. "By holding the Teachers Institute sessions at various locations in the country, it gives them a national flavor," Spencer said. "This increased tempo of offerings was made possible with the addition of Miguel Enriquez, KD7RPP, and Nathan McCray, K9CPO, who joined me on the Teachers Institute instructor team."

Spencer said that a typical Teachers Institute session includes about 12 participants, with about half of those licensed amateurs. "The final section at Newington this year was unusual in that eight of the 11 participants were hams before the session," Spencer recounted, "but the three non-ham teachers studied for and passed their Technician licenses exams during the session, rounding out the roster with 100 percent hams!" The ARRL VEC expedited their applications so three new hams received their call signs that day. "These teachers had the unique experience of making their first ham radio contacts with the headquarters station W1AW, with the appropriate pomp and circumstance for such a momentous experience in a ham's career," Spencer said.

The ARRL Teachers Institutes provide a four-day, intensive in-service training opportunity for classroom teachers in basic electronics, the science of radio, bringing space technology into the classroom, microcontroller programming and basic robotics. For the first time, an advanced session of the Teachers Institute was added this summer. This session, made available to a few Teachers Institute graduates, included an expanded space in the classroom unit. This inaugural session, dubbed TI-II, focused on assembling and integrating the equipment and software required to setup a satellite Earth ground station, how to operate the ground stations to communicate with other hams via ham radio satellites, and finally how to intercept, copy, decode, interpret and use satellite telemetry in the classroom.

The Teachers Institute program is one component of the grant offerings within the Education and Technology Program (ETP) <http://www.arrl.org/FandES/tbp/ti.html>>. This portfolio of resources is made available to schools and school teachers to advance the integration of wireless technology literacy and ham radio into school curricula. The ETP is possible only because of the generous donations from those who share in the passion of ham radio [<https://www.arrl.org/forms/development/donations/education/2008/>](https://www.arrl.org/forms/development/donations/education/2008/). The Dayton, Ohio session of the Teachers Institute was supported by the Dayton Amateur Radio Association (DARA) [<http://www.w8bi.org/>](http://www.w8bi.org/). The cost of the equipment provided to the teachers during the TI-II was offset by the generous support of Yaesu [<http://www.yaesu.com/>](http://www.yaesu.com/).

The success of the Teachers Institute is best told by the participants themselves:

* "I highly recommend this inspiring and practical course -- it covered everything from basic electronics to satellite operations to robotics in ways that are

directly applicable to many grade levels and subject areas. What a fantastic way to integrate knowledge and get students inspired to learn!"

* "It made me realize that if we can get students interested in radio and electronics technology, there are no limits to what they can achieve and develop. The TI was an eye opener, even for a long time teacher like me. It made me excited to learn again."

* "This program is perfect for a teacher who wants to learn basic electronics and wireless technology. This is a great workshop to put on your resume and a great investment in you and your students."

* "I thought that I knew the Parallax BOE-BOT before the TI, but I learned more than I previously knew during the TI. Before the session, I would not have gotten my Technician class license; I did so only because of the encouragement of the instructor and my fellow TI participants."

* "This was a great program and very productive use of time. The pace was good for varying levels. I found exciting new ideas for use in the classroom. The most important thing for classrooms: Having Fun!"

* "I can't wait to implement the ideas in my classroom that were presented during the TI."

* "ARRL: Keep up the good work!"

Information on the 2010 sessions of the ARRL Teachers Institute on Wireless Technology will be available in February.

NEVADA HAMS COORDINATE ROADSIDE MEDICAL RESCUE

On the afternoon of July 16, ARRL Elko County (Nevada) Emergency Coordinator Greg Barker, K7CWL, was making his way home on Nevada Highway 278 when a van sped past him. About 60 miles later into his trip, he saw the van slow down and pull over to the side of the road. Barker, a physical therapist, pulled over and asked if he could assist. An elderly couple, their daughter and granddaughter were on the way to the hospital in Elko -- another 60 miles -- as the grandmother was experiencing what they believed was a series of mini-strokes.

The daughter told Barker that their van kept losing power and wouldn't run. Barker assessed the grandmother and tried to call 911 on his cell phone, but there was no coverage in that area. "I put out a call on my mobile radio, requesting immediate assistance, using the 146.850 repeater located about 55 miles away, part of a wide-area linked repeater system maintained by the Elko Amateur Radio Club," he told the ARRL. "Kent LeBart, K6IN, club president and a radio technician for the Nevada State Highway

Patrol, was monitoring the system and responded immediately, asking how he could be of assistance."

Using the crossband repeat mode on his mobile radio, Barker was able to stay with the family at the van. He also used his handheld transceiver to tell LeBart that the grandmother needed to get to the emergency room. "Kent contacted central dispatch and relayed the information I gave him and asked me questions from the dispatch about the patient's situation and condition," he said. "Based on that information, they sent a medivac helicopter from Elko and an ambulance from Carlin."

Barker said that Highway 278 has no mile markers: "I relayed information to dispatch about the location using the closest ranch name and mountain pass turn-off as landmarks. With this information, volunteer fire fighters and first responders were on scene in about 20 minutes and the helicopter was on scene in about 30 minutes, followed by the ambulance at about 35 minutes."

Another local ham, Joe Sasgen, AD7OO, was able to offer useful information about approximate arrival times of the helicopter and ambulance. "Joe was monitoring central dispatch out of Elko," Barker said. "This information was reassuring to the family."

Flight paramedics assessed the grandmother and determined that a flight was justified based on her condition, Barker told the ARRL. "I was able to take her husband into the hospital in Elko to meet his wife. This is another testament to the value and utility of Amateur Radio, particularly on the lonely highways of rural Northern Nevada."

LOCAL HAMS AID RESCUE SQUAD TO SOLVE PUBLIC SAFETY INTERFERENCE ISSUE

When you live on a remote island with numerous mountains and valleys, communications can be tricky. Add interference that blocks the main communications frequency used by the local emergency rescue squad and you've got a disaster waiting to happen. That's what responders and residents on St John in the US Virgin Islands recently found themselves facing.

On June 12, the primary repeater output frequency for St John Rescue <<http://www.stjohnrescue.org/>> was completely blocked by a 2-tone AFSK signal that continued for more than a week. Because St John Rescue uses the frequency to dispatch, monitor and provide two-way communications during emergency calls, it was vital that the cause of the problem be detected and corrected.

According to Phyllis Benton, NP2MZ, a Public Information Officer in the ARRL US Virgin Islands Section, some members of St John Rescue are also members of ARES. With some additional help from the FCC, three hams -- Paul Jordan, NP2JF, Mal Preston, NP2L, and George Cline, KP2G -- set out to find the source of the interference.

The interference was not directly affecting operation of a second rescue repeater, Benton told the ARRL. "St John Rescue Chief Gilly Grimes and Paul Jordan, NP2JF, used handheld Yagi antennas to 'fox hunt' for the source of interference," she said. "To their surprise, the signal was being received off the back of the antennas and coming in very strong."

The source of the interference turned out to be 32 miles away from a tower on Mount St Georges on the island of St Croix. "The carrier frequency was just 7.5 kHz above the rescue frequency of 158.7525 MHz," she explained. "Upon closer inspection, the problem was isolated to a repeater that is part of the new US Virgin Islands territory-wide MPT 1327 trunking system. This transmitter was licensed for and was putting out 120 W with a pass band of 50 kHz and was being tested as the control channel."

Benton said that the second, unaffected repeater operates at an output frequency of 159.660 MHz, far enough away from the trunking frequency being tested to avoid being affected: "This second repeater serves areas not covered by the primary repeater. So, until the problem was resolved, a large part of St John was left without reliable rescue emergency radio communications. Once the source of the problem was identified, the interference was turned off on June 19."

To head off any future interference problems, the trunking system promoters have asked St John Rescue to change its current repeater frequencies to frequencies that theoretically would not receive interference from the trunking system. Benton said that St John Rescue is considering this request. -- Information provided by PIO Phyllis Benton, NP2MZ

HAM RADIO HELPS OUT WITH MOUNTAIN RESCUE

It was a quiet afternoon on July 11 and Rich Lipucci, KI6RRQ, of Vista, California, was monitoring the Catalina Amateur Radio Association (CARA) repeater on his base station. "I heard someone come over the repeater, calling, 'Is there anybody listening?' I responded and the caller said he was on his handheld transceiver hiking around the Mt Baldy area. He was about 2.5 miles off road and resting at the wilderness San Antonio Ski Hut

<<http://angeles.sierraclub.org/lodges/sanantonioskihut.html>>. A few hikers had arrived from farther in the backcountry -- one of their friends had broken an ankle and was a mile or more up the trail and they needed help." Mt Baldy is the highest peak in the San Gabriel Mountains and the highest point in Los Angeles County.

Lippucci asked the caller for his call sign and name. "He told me he was Kirk Gustafson, KE6MTF," he told the ARRL. "I asked Kirk if he had a cell phone, but he told me there was no cell service where they were. I told him I would coordinate emergency services over my landline and asked for his exact location. He did an excellent job; he had a good idea of where he was and wasn't sure which county he was in, but he did have GPS coordinates."

Using his landline, Lippucci called 911 and was transferred three times until he was connected to Chelsea in the San Bernardino County Sheriff's dispatch center. "Chelsea coordinated the rescue with the San Bernardino Fire Department who sent a foot patrol to the area," he said. "The Sherriff's office dispatched a helicopter to meet someone at the ski hut to take them to where the hiker was down. It took a little less than an hour for emergency services to get above the location in a helicopter, but they were not able to land the helicopter due to the rocky terrain at the ski lift." Lippucci said that while the foot patrol and helicopter were on their way, the group of hikers had brought the injured woman down the trail to the ski hut, stabilized her leg and determined it was probably not broken. They still did not feel they could carry her out as the trail down from the wilderness ski lift was so steep." The ski hut can only be reached via a steep three mile hike and 2200 feet elevation gain.

The dispatcher told Lippucci that the helicopter would perform a skid rescue where a crew member suspends a bed basket from the helicopter; the victim is secured and pulled back up to the helicopter. The dispatchers asked Lippucci to relay back to Gustafson, asking if the group needed anything, such as food or water. Gustafson relayed back that they didn't need anything. "After about 15 minutes from arriving on site, the helicopter and its crew got the victim airlifted out successfully without further complications," Lippucci said. Gustafson took a video of the rescue with his cell phone <http://marlene.zimage.com/ke6mtf/hike/rescue/iPhone/IMG_0408.MOV>.

Gustafson and Lippucci -- both ARRL members -- have been in contact since that Saturday afternoon. "Since the incident, Kirk informed me that the injured lady was around 40 years old and that there were up

to 15 hikers hanging around the ski hut, some of which were search and rescue volunteers on vacation," he told the ARRL. "They had some kind of radios with them, but their batteries were dead. Kirk said when he got out of his car to start his hike, he grabbed his handheld transceiver radio and GPS. His friends told him 'That's just extra weight -- you won't need that.' He told them, 'I go nowhere without my radio. If I need to call for help, the only way I would be able to let them know where I am is with GPS. I'm bringing them.' I don't think they will say that next time! Kirk said that one of them decided they need to look into getting a ticket and radio and that the search and rescue folks said they were going to look into getting ham radio licenses."

Lippucci said that ham radio saved the day: "A handheld radio, hitting a local wide-area repeater, was what was needed when cell and landline phones were not available. Many thanks to the CARA club for their awesome reach in Southern California on 2 meters. Thanks also to those on the air that were very gracious to respect the traffic and keep communications open during the rescue. This is such an excellent example of the benefits of ham radio. If people had to hike out of the wilderness, get to their cars and find a cell signal, they might have been pushing up against the loss of daylight hours. Any rescue would have been significantly more difficult in the dark."

Lippucci told the ARRL that 911 and the Sherriff's office in San Bernardino accepted the ham radio call without hesitation. "They used a ham radio operator to relay questions to Kirk through me, to gain all the information they wanted and needed to put assets on the emergency," he said. "It was as if I was calling about something in my own backyard, even though the problem was several counties away in the mountains, with people I didn't know. I am proud to have had the opportunity to use my license in service of an emergency situation. As a CERT member <<http://www.citizen corps.gov/cert/>>, this was the very reason I got my ham radio license in the first place!" -- Information provided by Rich Lippucci, KI6RRQ

2009 Flea Markets/Conventions

September

12 Augusta ARA, Windsor ME

13 Western CT Hamfest, Newtown CT

19 76 Auction and Flea Market, Forestdale RI

20 MIT

October

11 Connecticut State Convention

16-17 NEAR Fest, Deerfield NH

18 MIT

November
FARAFest Falmouth ARA, Bourne MA

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

2009 Contest, DXpeditions and Special Events

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.

Sept

12-13 ARRL September VHF QSO Party
19-20 ARRL 10 GHz and Up Contest

October

10-11 ARRL International EMD Competition

November

7-8 ARRL November Sweepstakes CW
21-22 ARRL November Sweepstakes Phone

December

4-6 ARRL 160 Meter Contest
5-6 ARRL International EME Competition
12-13 ARRL 10 Meter Contest



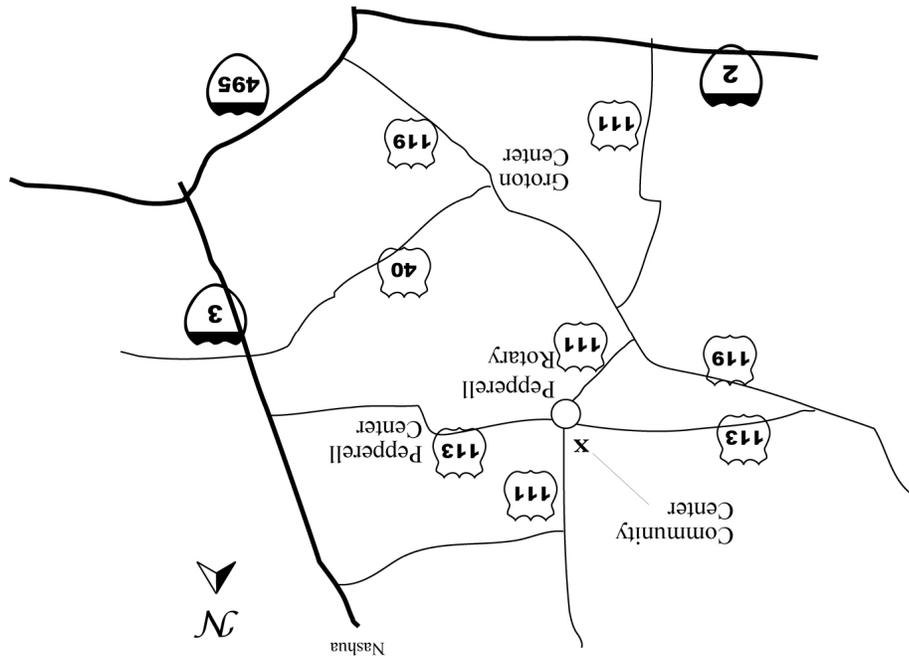
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N1NC Trustee: Bruce Blain K1BG
Meetings are held on the 3rd Thursday of the month
7:30 p.m. - Pepperell Community Ctr.
Talk-in 146.490 simplex
442.900 + 100Hz Repeater battery power
147.345 + 100 Hz Repeater
53.890 - 100Hz Repeater battery power
This newsletter is published monthly. Submissions, corrections and inquiries should be directed to the newsletter editor. Articles and graphics in most IBM-PC formats are OK.
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