NVARC
Nashoba Valley
Amateur Radio Club

SIGNAL

de N1NC

May 2009 Volume 18 Number 5

This Month's Meeting

Next club meeting is Thursday May 21st.

REMINDER – At the April Board meeting it was decided to change the Board meeting to the first Thursday of the month instead of the second Thursday. This is to allow the Board more time to address issues between the Board meeting and the Regular meeting. As always these meetings are open to all members.

The road clean up will be Sunday May 24th

Meeting site info and maps on the back page and the NVARC Website.

Field Day June 27-29

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.

Parker Classic Road Race

John KK1X still needs volunteers for the Parker Classic Road Race.

Last Month's Meeting

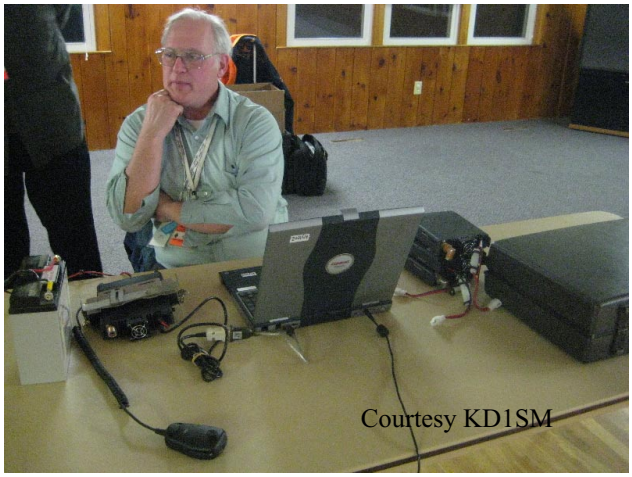

Courtesy KD1SM

Last months speaker was Terry Stader WA8SCP. Terry is the Area 1C RACES Radio Officer. He spoke on ARES and RACES and covered some of the other organizations such as SKYWARN, and CERT.

Elections were held. Results below

Stan KD1LE	President
Peter N1ZRG	Vice President
John KK1X	Secretary
Ralph KD1SM	Treasurer
Joel W1JMM	Board Member

Stan maintains a frequency list for programming FT8900's that covers all locally used frequencies as well as those used for many public service events. He brought his computer with the software to the meeting and programmed FT8900's that members brought to the meeting with the latest frequency set.



In attendance

Dwight AA1MT, Bruce K1BJ, Dennis K1LGQ, Skip K1NKR, Gary K1YTS, Tom K1NNJ, Larry KB1ESR, Phil KB1JKL, Stan KD1LE, Ralph KD1SM, John KK1X, Dave N1MNX, Peter N1PQ, Peter N1ZRG, Jim N8VIM, Joel W1JMM, Erik W1ZBT, Darryl WA1GON, Rod WA1TAC, Earl WR1Y, Dave Sawyer KB1RVX, Terry Stader KA8SCP

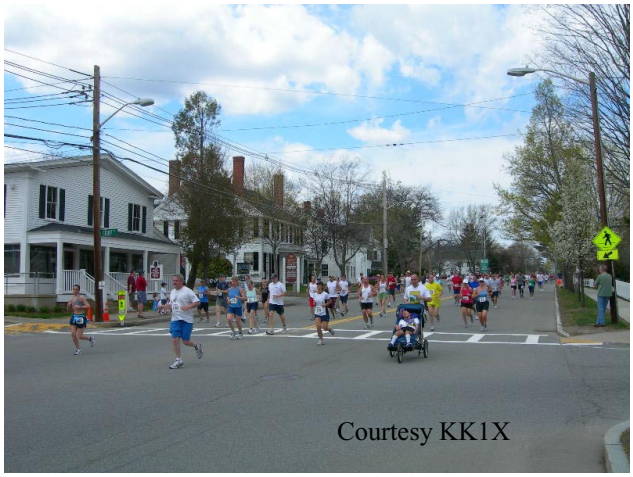
Groton Road Race

It was a beautiful sunny day on Sunday, April 26 for the 18th annual Groton Road Race. This was also the first hot sunny weekend day of 2009 and many runners were unprepared for the 80 degree heat. For the first time we had several medical calls on the course and after the finish line.

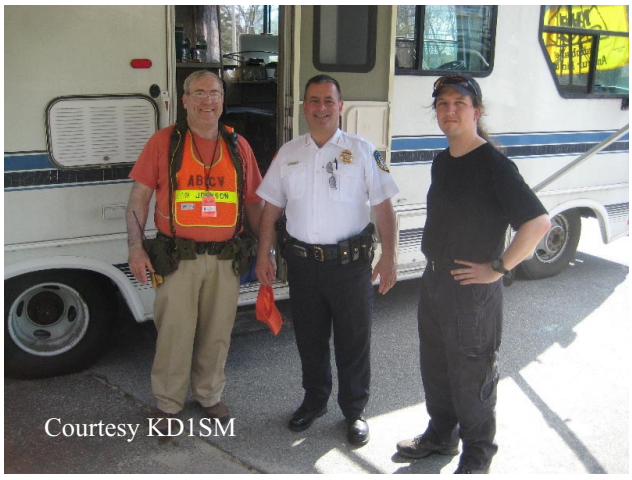
A record volunteer crew of 39 Hams assisted this year. From NVARC came Bob AB1CV, Gary K1YTS, Karen KA1JVU, Larry KB1ESR, Nancy KB1KEF, Stan KD1LE, Ralph KD1SM, John KK1X, Dan N1LLG, Jim N8VIM, Joel W1JMM, Bob W1XP, Rod WA1TAC, Earl WR1Y, and Herm WW1HR.

The NVARC crew were joined by AE1Y, K1EJ, K1JHC, K1SUB, K1WD, K2HZB, KB1KTP, KB1LRL, KC1US, KT1I, N1BDA, N1HTS, N1ICB, N1MGO, N1MOR, N1QDZ, N1RKO, N1RXV, N1SPA, N1UZ, NF1A, W1KQ, W1SEX, and WA1RHP.

Runners take the corner from Main St. onto Hollis Street in the Groton 5k race.

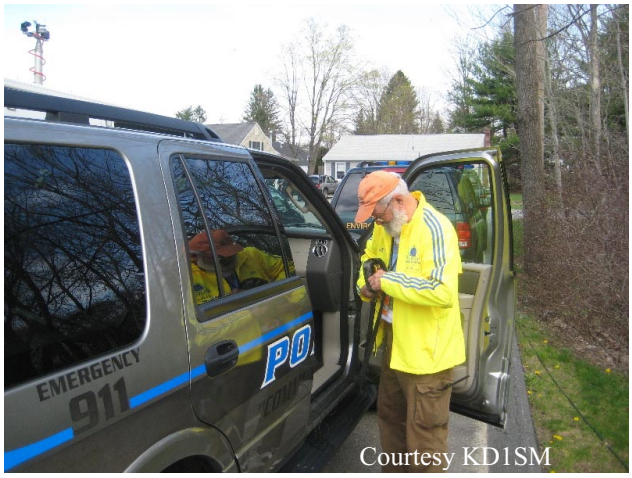


Runners on Main St. in the Groton 10k race.



Bob Johnson AB1CV (left) and Carsten Turner KB1KTP (right) with Groton Police Chief Don Palma, Jr.

Stan KD1LE at NCS



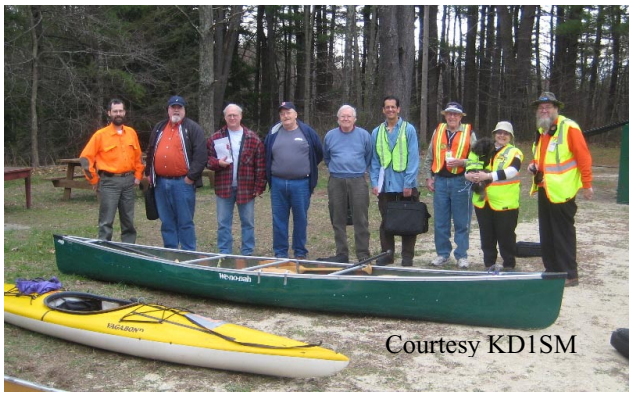
Larry KB1ESR installs APRS in the Chief's vehicle.

Townsend Canoe Races

Saturday April 18 started out looking a bit dreary and occasional rain droplets met the 10 am start of the Townsend Lions Club two-man Canoe and Kayak race. Rain never fully arrived, however, permitting the 43 canoes and kayaks to run the Squannacook River from West Townsend to Townsend Harbor safely.

Eight Hams assisted at checkpoints along the course; John KK1X, Barry W1HFN, Nancy KB1KEF, Gary K1YTS, Charlie KT1I, Stan KD1LE, Tom K1JHC, and Ralph KD1SM. Soon-to-be Ham John Ceratelli worked alongside Barry.

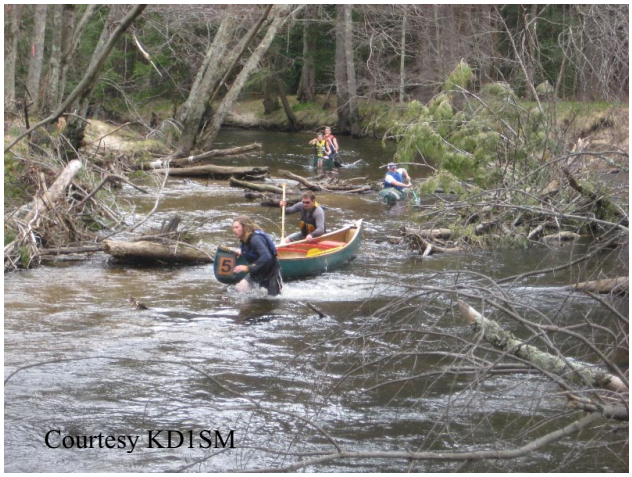
The volunteers were treated to a spaghetti dinner along with the participants at the West Townsend VFW after the event.



Above: (left-to-right) KD1SM, KK1X, KD1LE, KT1I, W1HFN, John C, K1JHC, KB1KEF, K1YTS

Above: Stan KD1LE is Net Control and also watches the river at the lower railroad trestle.

Below: low water and snags forced several canoeists out of their crafts mid-stream.


Courtesy KD1SM

NVARC Lantern Battery Challenge

Club HF operating event using one 15 volt battery made up of lantern battery cells

The basic idea is that a club member operates for the event duration, say six months, or until his lantern battery is exhausted. He or she can run as much or little power he or she likes but all sending and receiving equipment must be powered by the battery. The battery is made up of 10 lantern battery cells. Lantern batteries are typically six (6) or twelve (12) volts using four (4) or eight (8) cells. The thought of adding two extra cells to the battery is an attempt to provide longer life. Many radios, even low power radios are designed to work at a voltage of 13.8 volts. A twelve (12) volt battery is starting well down in the operating range of the radio when it is new. So the idea of putting two additional cells in the "NVARC Lantern Battery" is to start off at 15 volts so we can expect much longer operation in the range of the radio. Most radios are specified to work in the range. If there is any concern about an individual radio, a diode or two can be added in series with the battery to provide a small drop in the battery voltage till the battery voltage starts to decline.

The club would provide the batteries so everyone would get a battery that is the same. At least as close as the manufacture make them. The club would buy the necessary batteries based on the number of persons signing up and assemble the batteries probably with some high tech method such as duct tape. Each battery will have an Anderson power pole connector. The entrants will pick up their battery at the October meeting. The event will begin at the close of the meeting and likely run till the first of March. Logs will be due at the March meeting. Awards will be made at the April meeting. Spread sheet, computer logs or even paper logs on ARRL log book format are acceptable. A summery sheet is required and the exact form has yet to be decided. QSL's are not required but verification by the judging committee is possible. I haven't decided on the scoring yet and any suggestions are welcome. Just the total number of contacts is simple but doesn't add any incentive to see what distances can be covered which I think should be encouraged.

The idea is to have the period of operation cover the usually good conditions of fall and winter. All contacts must be made on the normal "contest" bands of 160, 80, 40, 20, 15, and 10 meters. If there is interest we may include VHF/UHF as a separate category, but this does not include FM.

Work any station only once per band, per mode. For example I can work Stan, KD1LE on CW, SSB, and Digital on 80 meters for three mixed mode contacts. Then I can do it again on 40 meters, etc. You can work stations in other contests and whatever the contest exchange is for that contest is valid for the Lantern Battery Challenge. This does present a problem if we choose to use states for a multiplier for example. I'm not sure how to resolve it. But an after the contact look up may be the solution. For general operating contacts RS(T) and name and state are required. For DX contacts just report and name. The country can be obtained from the prefix. Remember these are preliminary rules and I want to hear suggestions.

There may be as many as five entry classes:

1. Mixed modes (CW, SSB, and Digital)
2. CW
3. SSB
4. Digital, Note computer and display do not need to run on the battery for this mode. Only the radio.
5. Transmit only, a possible sub or additional mode may be the use of crystal control for transmit.

Only wire antennas and maximum height limit, say 50 feet. Verticals or multi band vertical antennas such as the R7 or other antennas are included as long as they meet the 50 foot max height limit. Maybe an "Un-limited or Extra-Super" mode for those that want to see what they can do with their large antenna systems. The purpose of the rules is not to limit the number of participants, but to encourage more participation.

Awards, all the fame you can carry home. But we may come up with something like cups, books, CDs. Certainly certificates will be awarded. The idea that everybody that enters is a winner comes to my mind.

The entrance fee is to cover the cost of the battery provided by the club. I expect it will be $15. This just covers the cost of two and a half lantern batteries.

The spirit of the operating event (I am reluctant to call it a contest) is to work as may contacts as possible on the limited amount of energy in the lantern battery. Working station with another rig and asking them to stand by and work you with your "QRP" rig is not in the spirit of the event.

It should be obvious that trying to run any of the modern transceivers on the battery will be short indeed. It will require a low power drain radio. There are of course many of these type of radios available. But the radios that have complicated receivers and fancy displays will require a lot of current in the receive mode. Even a radio like the K2 which was designed for low drain and has a low current mode with slightly degraded performance draws 120 to 150 mills in receive. That is about 50 to 100 hours of intermittent operation in receive. A radio that draws less current will have more operating time. Going to transmit where the battery current will increase several times at least will probably be where the battery will fail as it is exhausted of chemical energy. Lower power rigs with simpler receivers may have an advantage. But that remains to be seen. A big part of this is experimental.

There are those that will say, Well I don't have a radio and am not going to plunk down the Big Bucks for some fancy low power radio kit or otherwise. Well that is one reason for the transmit only mode. Low power, low drain, simple transmitters are little more than a weekend project and will get you in on the fun. There are kits available that could be used also. See the reference to a possible club project below.

Other suggestions?
I hope that this has sparked your interest and if you have any ideas or suggestions on how to improve the event please send them to me or make comments when you see me. Written down comments are best but all are welcome. The goal is to demonstrate what can be done and have some fun while we are at it. I would like to involve as many club members as possible. That is real goal of this. Along that line, it has been suggested that maybe a club project to build a suitable low power transceiver from a kit over the summer may be another club activity. If you have any interest in this please let me know. Even if we don't come up with a club project I am available to help anyone interest in this kind of project if you are interested in the Lantern Battery Challenge or not.

Till next time, Bob W1XP

PSLIST

Every event needs communications volunteers

May
17 Parker Road Race, John KK1X

July
3-5 Longsjo Classic, Ralph KD1SM
25 Alzheimer's Memory Ride, Ralph KD1SM

We are starting to fill in the 2009 events calendar. Seen www.n1nc.org/Events

Board Meeting

Chocolate Chip Cookies were served. In attendance were Bob W1XP, Ralph KD1SM, Stan KD1LE.

The Board meetings will now be the first Thursday of the month to allow the Board more time to deal with issues that need to be addressed prior to the regular meeting.

Though we have moved the board meeting to the first Thursday of the month the newsletter will be closed and published as before.

Bruce K1BG has volunteered to run Field Day and is soliciting comments as to what the members would like to do.

Wrap up of Groton Road Race issues. There is more interest in using APRS for tracking the race. This will probably take some dedicated personnel.

Discussion of upcoming meeting presentations.

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

Need more local content needed for the newsletter. They can be general interest, reviews of equipment, stories on activities, or subjects like how you got into Ham Radio.

We held our first Road Cleanup of the year in April. There were eight participants which is a good number.

Adopt A Highway

Bob and Stan are running the road cleanups for this year. Our first cleanup was Sunday April 19th. We picked up 16 bags of trash and one trash barrel.

Thanks to the following members who helped at the cleanup.

Rod WA1TAC, Nancy KB1KEF, Gary K1YTS, Stan KD1LE, Ralph KD1SM, Larry KB1ESR, Earl WR1Y, John KK1X.

Our next cleanup is May 24th.

We need a minimum of six people by MassHighways rules for a cleanup. We would like eight as that allows us to cover our 2 miles in an hour.

Stan

Treasurers Report

Income for April was $115 in membership renewals, $2.00 from ARRL renewal rebates, $30.08 in bank interest, $43.00 from the book raffle, and $4.00 from mug sales. Expenses were $16.80 for newsletter postage leaving a net income of $117.28 for the month.

Current balances:

General fund	$4,271.80
Community fund	$2,699.41

April marks the start of NVARC calendar cycle; this is the month the Club was established (in 1992), so many membership renewals are now due.

As of 7 May we have 46 members who are current with their dues and 19 renewals outstanding. Please check the member roster that is circulated at the monthly meeting if you do not remember your renewal date. Your membership date also appears on your mailing label if you still receive a newsletter in the mail. You can always ask Ralph if you are in doubt.

Please remember that the Club gets a commission on any new ARRL memberships or membership renewals that you submit through Ralph.

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

I have 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.

I 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

HOUSTON REPRESENTATIVE INTRODUCES AMATEUR RADIO BILL IN CONGRESS

On Wednesday, April 29, Representative Sheila Jackson-Lee (D-TX) introduced HR 2160 -- the "Amateur Radio Emergency Communications Enhancement Act of 2009" -- in the US House of Representatives. This bill, if passed, would "promote and encourage the valuable public service, disaster relief, and emergency communications provided on a volunteer basis by licensees of the Federal Communications Commission in the Amateur Radio Service, by undertaking a study of the uses of Amateur Radio for emergency and disaster relief communications, by identifying unnecessary or unreasonable impediments to the deployment of Amateur Radio emergency and disaster relief communications, and by making recommendations for relief of such unreasonable restrictions so as to expand the uses of Amateur Radio communications in Homeland Security planning and response." The bill has been referred to the Committee on Energy and Commerce <http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi ?dbname=111_cong_bill s&docid=f:h2160ih.txt.pdf>.

If enacted into law, HR 2160, would instruct the Secretary of Homeland Security to undertake a study and report its findings to Congress within 180 days. The study would spell out uses and capabilities of Amateur Radio communications in emergencies and disaster relief. The study shall:

* Include recommendations for enhancements in the voluntary deployment of Amateur Radio licensees in disaster and emergency communications and disaster relief efforts.
* Include recommendations for improved integration of Amateur Radio operators in planning and in furtherance of the Department of Homeland Security initiatives.

* Identify unreasonable or unnecessary impediments to enhanced Amateur Radio communications -- such as the effects of private land use regulations on residential antenna installations -- and make recommendations regarding such impediments.
* Include an evaluation of Section 207 of the Telecommunications Act of 1996 (Public Law 104-104, 110 Stat 56 [1996]).
* Recommend whether Section 207 should be modified to prevent unreasonable private land use restrictions that impair the ability of amateurs to conduct, or prepare to conduct, emergency communications by means of effective outdoor antennas and support structures at reasonable heights and dimensions for the purpose in residential areas.

The Secretary of Homeland Security shall utilize the expertise of the ARRL and shall seek information from private and public sectors for the study.

The bill currently has five co-sponsors: Madeleine Bordallo (Guam), Mary Jo Kilroy (D-OH), Zoe Lofgren (D-CA), Blaine Luetkemeyer (R-MO) and Bennie Thompson (D-MS). Representative Thompson currently serves as Chairman of the Committee on Homeland Security. Representatives Jackson-Lee, Lofgren and Kilroy are members of that committee.

"We understand that Representative Jackson-Lee was very impressed with the radio amateurs she encountered on a visit to an Emergency Operations Center in Houston during Hurricane Ike last September," said ARRL Chief Executive Officer David Sumner, K1ZZ. "We are grateful to her and to the five original co-sponsors for their support of Amateur Radio and the encouragement that their bill offers."

ARRL President Joel Harrison, W5ZN, concurred: "We are excited to have Representative Sheila Jackson-Lee introduce HR 2160. It is extremely encouraging to have the support of a number of original co-sponsors -- including several members of the House Homeland Security Committee -- who recognize the importance of Amateur Radio's long history of public service."

BOSTON AREA HAMS PROVIDE COMMUNICATIONS SUPPORT FOR ANNUAL MARATHON

More than 250 Amateur Radio operators provided communication support for the 113th running of the Boston Marathon http://www.bostonmarathon.com on Monday, April 20, also known as Patriots' Day <http://en.wikipedia.org/wiki/Patriots_Day>. With more than 26,000 official runners and 500,000 spectators along the 26 mile route, the marathon utilized amateurs at the starting line, along the course at each water and first aid station, and at the finish line.

"This is the largest public service event in New England in terms of the number of Amateur Radio operators required for a one-day event, and we can always use more hams to help us," said Marathon Amateur Radio Communications (MARC) <http://marc.mmra.org/marc/index.html> Course Coordinator Steve Schwarm, W3EVE. "We're glad that the weather was cool and the number of ambulance requests this year was lower than past years, where we had higher temperatures and more medical issues."

Even with the more temperate weather, MARC Finish Line Coordinator Paul Topolski, W1SEX, said the medical tents at the finish line were near capacity by mid-afternoon. "Hams provided communications, status and logistical issue updates between the medical tents to our finish line net control as needed," he said.

The Massachusetts Emergency Management Agency (MEMA) was active with operations at the State Emergency Operations Center in Framingham, with their operations room acting as a Unified Command Center (UCC) for the marathon. RACES members staffed the communications room at the SEOC, and ARRL Eastern Massachusetts Section Manager Mike Neilsen, W1MPN, staffed the UCC. Neilson fed status reports on any issues along the marathon route into the operations room, as well as issues from the UCC to the operations room.

"This is the first time we've had an Amateur Radio Operator in the operations room of the UCC," said Massachusetts State RACES Radio Officer Tom Kinahan, N1CPE. "We have been coordinating with the Boston Marathon Net Control and the finish line communications in Boston to provide updates into our station and to our Amateur Radio operator in the UCC."

The Net Control center is located with a line-of-sight to the Boston area and to the entire 26 mile route in case simplex communication is required. More than a dozen repeaters were utilized to provide overlapping coverage to the marathon route. The Clay Center Amateur Radio Club, the Minuteman Repeater Association, the Framingham Amateur Radio Association and many other clubs in the New England area support the marathon operations.

With so many amateurs placed along the marathon route, ARRL Eastern Massachusetts Section Emergency Coordinator Rob Macedo, KD1CY, placed Eastern Massachusetts ARES on standby in case something went wrong along the marathon route, or a major incident occurred coincident with the marathon.

"This is standard operating procedure for 'Marathon Monday'" he said. "We want our members to maintain a heightened state of awareness during the event."

Patriots' Day -- a state holiday in Massachusetts and Maine -- commemorates the anniversary of the Battles of Lexington and Concord, the first battles of the American Revolutionary War.

WHEN VANDALS STRIKE INFRASTRUCTURE, HAMS PROVIDE COMMUNICATIONS SUPPORT

Just after midnight on April 9, someone climbed down four manholes in the San Jose, California area and cut underground fiber optic cables. The sabotage led to widespread disruption of phone service -- including tens of thousands of land lines, an undetermined number of cell phones, Internet access and 911 emergency service -- in southern Santa Clara County, as well as in Santa Cruz and San Benito counties. San Jose is the county seat of Santa Clara County. With the infrastructure disabled, local Emergency Management officials called on ham radio operators in their communities to provide back-up communications. According to the "San Jose Mercury News," Santa Clara County called a local state of emergency, "but worst-case scenarios were successfully avoided through use of ham radios, door-to-door checks and extra-vigilant patrols" <http://www.mercurynews.com/centralcoast/ci_12121118?nclick_check=1>.

In Santa Cruz County, just over the Santa Cruz Mountains from San Jose, Santa Cruz County District Emergency Coordinator Cap Pennell, KE6AFE, was awoken just after 5 AM on April 9 by uniformed police at his door. Sent by Dominican Hospital President Nanette Mickiewicz, the police officers escorted Pennell to the hospital for a brief on this situation: The fiber optic lines that had been cut in San Jose had affected the Santa Cruz hospital's communications infrastructure, cutting off communications from the hospital to the outside world. Santa Cruz is located on the northern edge of the Monterey Bay, about 70 miles south of San Francisco.

"While I was meeting with hospital department heads, Bob Wolbert, K6XX, had started our ARES Resource Net on the W6WLS/W6MOW linked repeaters," Pennell told the ARRL. "During the briefing, the hospital determined to implement HICS/SEMS for this emergency. There hadn't been telephones or Internet anywhere since about 2:30 AM. The hospital's phone system did work, but only within the hospital. Their internal computer local area network wasn't working either, so they were instantly on a 'paper system.'"

By 6:15, Pennell said they had established tactical radio links on the K6BJ/KI6EH linked repeaters between the Dominican Hospital Emergency Operations Center in Santa Cruz and the Watsonville Community Hospital emergency room; Watsonville is about 15 miles south of Santa Cruz via the Pacific Coast Highway. "We established HEARNET 155.385 simplex between both hospital ERs and County 911; HEARNET is the Hospital Emergency Administrative Radio Network. Once HEARNET (ER staff) and K6BJ repeater (hams) were staffed and operating at both hospitals, I left the hospital to become our initial ham operator at the County Emergency Operations Center and operated as ARES/ACS shift supervisor from there for the rest of the day," Pennell reported.

Throughout the day, Pennell said that hams -- including some in Monterey County who had been working telephones -- helped dispatch ambulances, conferred with the Poison Center on a children's poisoning case, ordered replacement blood supplies for two hospitals from San Jose Red Cross, relayed a complex major "whole hospital" day's food order to the supplier out of county, tracked down various doctors for emergency consultations and shared status updates from our area. "We did all this while in unity with the County government, public safety agencies and California Emergency Management Agency's Coastal Region," he said. "Greg Smith of Cal-EMA <http://www.calema.ca.gov/> spent the day in the Santa Cruz EOC with us." All service was restored by 12:15 AM on Friday, April 10.

Community Leaders Praise Hams

Gilroy, the southernmost city in Santa Clara County, was also affected. City Administrator/Director of Emergency Services Thomas J. Haglund expressed his thanks to the Amateur Radio operators who assisted with communications support, saying, "This particular emergency situation underscores that our reliance on technology should be balanced with maintaining the very types of capabilities that you provided to us. Communication is an obvious key to adequately responding to any emergency and the efforts of the Mutual Aid Communicators and the Gilroy Police VIP's provided the necessary communication and public visibility in this instance and demonstrated just how important your training and skill is to our community. Thank you very much for your dedication and expertise."

Some information provided by "The San Jose Mercury News" and "The Daily Tech"

2009 Flea Markets/Conventions

May
17 MIT

29 Hartford Hamfest
30 Southern Berkshire ARC

June
6 Bangor Hamfest
20 NARLFEST Newington CT
21 MIT

July
19 MIT

August
16 MIT

Advertisements

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

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.

Contests 2009

March
15 North American Sprint Contest RTTY
28-29 CQ WW WPX Contest SSB

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http://www.n1nc.org/

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Vice President: Peter Nordberg N1ZRG
Secretary: John Griswold KK1X
Treasurer: Ralph Swick KD1SM
Board Members:
Bob Reif: W1XP 2007-2010
Skip Youngberg K1NKR 2008-2011
Joel Magid W1JMM 2009-2012

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PIO: Dave Peabody N1MNX
Librarian: Peter Nordberg N1ZRG
Property Master: John Griswold KK1X
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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