

Nashoba Valley





de N1NC

September 2005 Volume 14 Number 9

This Month's Meeting

The next meeting will be September 15th when we resume our regular meeting schedule. The meeting program will be "How to Develop Low Cost Printed Circuit Boards using PC ExpressPCB" by Les N1SV. In addition to using it at work Les has used it to layout boards for the sound card interface.

We plan to distribute the update to the Yearbook at the meeting. The update will be about 30 new or replacement pages.

Last Month's Meeting

The NVARC Cookout took place August 13 at the KD2S QTH. It was another hot and humid day reminiscent of Field Day. The advantage was the most physical work planned was the flipping of burgers and climbing out of the pool. Although T-storms were threatened there was no rain so a good time was had by all. With a radio tuned to the Pepperell skydiving frequency we were forewarned each time parachutist were going to jump and from how high so we could watch.





Lynda N1PBL and Rosemary poolside.

Jim gave a tour of the "build it yourself" kit airplane project taking shape in his basement.

In attendance were Den KD2S, Rosemary KD2S XYL, Jim N8VIM, Stan KD1LE, Lynda N1PBL, Gary K1YTS, Don AB1DS, Les N1SV and Sara N1SV harmonic.

From the President

This month we start the new meeting year. Save the third Thursday on your calendar from now until next June.

In September we set up at the Groton Septemberfest to publicize Amateur Radio. Larry KB1ESR is coordinating the event and I'm sure he would like your ideas and help.

The December meeting program will be the traditional Homebrew Night. Think about all those great projects you finished over the last year and show them off.

We have planned for the January meeting to be a Members Short Topics Night. It would be nice to see what others are doing. Presentations should be in the five to ten minute range. Speak to one of the Officers if you would like to make a presentation so we can schedule the time. If you need any assistance preparing or props that someone else might be able to provide let us know. The subjects don't have to be Ham Radio only something your interested in.

Stan KD1LE

Adopt A Highway

The last cleanup was August 21st. Helping out at the cleanup were Ralph KD1SM, Stan KD1LE, Bob W1XP and Larry KB1ESR.

We had a very small turn out for the August cleanup. MassHighways wants at least six participants at a cleanup and I prefer a minimum of eight. We must work in pairs and eight people means pairs of people can cover just one quarter of the total distance. Doing a quarter back and forth takes less than one hour. Lets have a good turn out for the September cleanup.

The next cleanup will be Sunday September 18th.

We meet at the Nashua River common at 9:00 AM. The normal clean up day is the Sunday after the club meeting.

Cable Management

For years I have been providing several long RG-214 cables for use at events like the Groton Road Race and Field Day. These cables are 150 to 200 feet long. It is nice to have long cables when you need them (without a lot of connections) but they are heavy and the chore of laying them out and rolling them up after each event is a lot of work. Typical power cord reels available at hardware and building supply stores can hold 200 feet or more of RG-58 type cable or 200 feet of 450 ohm open wire type cable. But they would only hold 50-75 feet of RG-8 type cable and they would be winding it on a small diameter hub which depending on the specific cable type may be smaller than the recommended minimum bend.

After thinking about a range of solutions I came upon a small quantity of plywood and cardboard (hub) reels. They were for armored fire alarm wire that was about one half inch in diameter or slightly larger than RG-8. The reels had carried 1000 feet of cable. This at least seemed a possible starting point. The reels were too large as is with a 24 inch diameter and the hub had a 10 inch diameter and was one foot wide. These would hold much more cable than I planned to put on a reel since it would be very heavy filled to capacity. My goal was to have about a 250 foot capacity. Each reel would then hold one instance of a 200 foot piece of coax so I would be able to get at any section of cable without unwinding some large roll. With the proper stand I could also unreel multiple cables at the same time. Having the reels I brought them home to think about how they might be used.

The first thing I considered is how wide the reel should be. The two thoughts were that it should be wide enough to stand up on its own and a hand should fit easily to secure the wire. Based on these considerations I chose a five inch hub width and cut one of the hubs to this size. I cut the long bolts that hold the reel together and rethreaded them. Then I put the reel back together and wound 225 feet of cable on it. The reel at this point was a reasonable weight but was five inches short of being filled. The five inches of unused space would have held another 300 feet of cable but I didn't want to put more cable on one reel because it would be too heavy. This was going to take up more space than necessary. I decided to cut the reel ends down by three inches. This may not seem like much but it makes the reel one half foot smaller. The storage space needed would depend on the size of the reel ends and not on how full they were.



The finished reel and stand look like this.

Then I built a hand crank using PVC pipe that can be installed in any of the reels. It has a pin to engage a second opening in the reel to keep the reel and crank locked together when reeling in coax. I built a stand to support the complete reel to wind up or pay out the cable.

After reassembling the reel and winding the 225 feet of coax on it there is more than two inches of free space. Each additional inch at this diameter will accommodate more than 100 feet of cable. This could easily accommodate another 100 feet while keeping the cable and connector recessed.



In the above picture 490 feet of coax that was reeled in about ten minutes by one person. The reel on the left has 115 feet of RG-214 and the reel on the right has 225 feet of RG-214.

You can quickly pay out a cable with this system and can roll up 200 feet in a couple of minutes. Substitute another empty reel on the stand and your ready to go again.

To make the reels more durable I took them apart and finished both sides of the reel ends and the cardboard hub inside and out with polyurethane. After they dried I assembled the reels and gave them one more coat of polyurethane.

Stan KD1LE

Board Meeting Notes

The Board Meeting took place September 8th. In attendance were Ralph KD1SM, John KB1HDO, Stan KD1LE.

Items discussed included

Speakers and Programs for the Fall

The insurance policy premium bill was received. It is due in October. There is no change in the premium so we should pay it. It will be mentioned at the September meeting.

Certificates for Field Day

Larry KB1HDO will be organizing the Groton Septemberfest.

John KB1HDO will be looking for help for the soccer tournament.

Renewal of newsletter ads

Flea Markets and Such

Oct 7-8 Hosstraders Hamfest Hopkinton NH

Oct 9 Nutmeg Hamfest/ARRL CT Convention Wallingford CT

Oct 16 MIT Swapfest Cambridge MA

Location

Tel/Email

25-27 Aug 2006 Boxboro/ARRL NE Convention Boxboro

PSLIST

Date Contact `Event

Oct 8 Pepperell MA Fall Soccer Tournament John KB1HDO 978-772-5406 to 10 kb1hdo@verizon.net

Oct 21 Cambridge Head of the Charles Regatta Jeff N1FWV to 23 RWJeffA@comcast.net

Advertisements

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



\$July Treasurers Report\$

Income for August was \$35 in membership dues, and \$2 from ARRL membership renewals. Expenses were \$14.80 for newsletter postage and \$25 for the cookout leaving a net expense of \$2.80 for the month.

Current balances:

General fund Community fund \$4514.57 \$2079.95



As of 8 September we have 56 current members and five 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.

Remember, you can renew your ARRL membership through the Club and save yourself a stamp. You also help the Club treasury as the ARRL lets the Club keep a portion of any new or renewal membership sent through us.

Ralph KD1SM

NVARC Club Net

The club net has been meeting on the 442.900 repeater. Recent participants include Bob W1XP, Bob AB1CV, Larry KB1ESR, Skip K1NKR, Gary K1YTS, Ralph KD1SM, Stan KD1LE and Don AB1DS.

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

ARRL PRESIDENT URGES ORDERLY AMATEUR RADIO RESPONSE TO KATRINA

ARRL President Jim Haynie, W5JBP, this week called on the Amateur Radio community to exercise patience as the Hurricane Katrina and New Orleans flooding relief and recovery efforts move into high gear.

"I know many people would like to move now," Haynie said. "Please don't. I know many of you want to enter the fray, come to the coast and get involved. Please, not yet." Haynie instead advised hams eager to assist to make sure they're prepared, refresh their skills and knowledge of protocols and procedures.

The ARRL now is seeking experienced Amateur Radio emergency volunteers to help supplement communication for American Red Cross feeding and sheltering operations in Mississippi, Alabama and the Florida Panhandle. Special consideration will be given to operators who have successfully completed the ARRL Amateur Radio Emergency Communications course training (Level I minimum) to serve as team leaders. All interested should e-mail <Katrina@arrl.org>, providing name, call sign, contact information and any equipment you can take along on a field deployment for an indefinite period. Volunteers may face hardship conditions without the usual amenities and will need to provide their own transportation to the marshaling area.

Haynie says safety is of paramount importance to all ARES volunteers. "For now, the area is simply too dangerous, and no one is being allowed in," he pointed out. "Transportation and logistics, including volunteer groups coming in, must be done in an orderly manner or we may only add to the chaos and confusion." He requested that ARES members and teams work through their Section Emergency Coordinators (SECs).

President Haynie's complete remarks are on the ARRL Web site http://www.arrl.org/news/stories/2005/09/01/1/>.

Amateur Radio operators from Texas were deployed this week to New Orleans to assist in the troubleplagued evacuation of flooding refugees from the Louisiana Superdome. Because of additional flooding, damage to the facility and other problems at the Superdome, authorities convoyed the 25,000 flood evacuees in the sports stadium to the Houston Astrodome and other locations in Texas.

Louisiana Section Emergency Coordinator Gary Stratton, K5GLS, says ham radio communication between Houston and the Baton Rouge, Louisiana, emergency operations center (EOC) September 1 was able to clarify some logistical issues involved with the refugee relocation effort.

While Amateur Radio is providing support in Louisiana for various relief organizations, Stratton said most ham radio efforts to date have gone toward assisting with emergency management and searchand-rescue operations. Stratton says he has ARES members ready to roll once authorities reopen the hardest-hit parishes that have been closed off to outsiders.

"We have people on standby from all over northern Louisiana and from the South Texas Section basically champing at the bit trying to find out when they can go," Stratton told ARRL. "It's a very tough wait." Volunteers have been or will be deployed into areas that are not cordoned off, he said.

Mississippi Section Manager Malcolm Keown, W5XX, says ARES members are active in the three hardest-hit counties--Harrison, Hancock and Jackson. Amateurs there have been using HF, VHF and UHF resources to support emergency management as well as the Red Cross, The Salvation Army and the Baptist Men's Kitchen. They've also been handling considerable health-and-welfare traffic, Keown said.

In combination with his role as an ARES member, Alabama SM Greg Sarratt, W4OZK, this week volunteered at a Southern Baptist Disaster Relief Organization encampment in Mobile on his state's hurricane-stricken Gulf Coast--and he's using his vacation time to do it. He supported communication for the Red Cross, The Salvation Army and Southern Baptist relief organizations helping to feed flood victims and supply them with necessities.

"There's still a lot of power outages, still a lot of damage--trees down, roads blocked, a lot of streets under water in the downtown Mobile area, and a lot of people who don't have food, electricity or phones here," Sarratt told ARRL. "Until I got down here, I didn't know the magnitude of the Mobile situation." He said Amateur Radio volunteers at the encampment are coordinating on HF with Alabama SEC Jay Isbell, KA4KUN, and providing logistical communication support for Red Cross emergency response vehicles on VHF FM simplex.

Sarratt will head to Mississippi and Louisiana's ravaged coastal areas over the holiday weekend to help out ARES volunteers already there. "Those guys down there have found massive devastation--no power, no cell phones."

The West Gulf ARES Emergency Net remains active on 7.285 MHz days and 3.873 MHz nights, handling emergency and priority traffic only. Health-andwelfare traffic is being handled on 7.290 MHz days and 3.935 MHz nights. The Salvation Army Team Emergency Radio Network (SATERN) on 14.265 MHz has begun concentrating on emergency and priority traffic and shuttling health-and-welfare requests to its Web site <http://www.satern.org>. The Salvation Army also is using Amateur Radio for its tactical communications.

Radio amateurs not involved in emergency communication are being asked to keep the West Gulf Emergency Net and SATERN frequencies clear, plus or minus 5 kHz. ARRL advises that stations not initiate any additional traffic into the storm-affected areas at this time.

The ARRL ARES E-Letter <http://www.arrl.org/FandES/field/ares-el/> has posted a special edition that contains additional details on Amateur Radio's Katrina response efforts. For more information, including links to report or locate missing individuals, visit the FirstGov.gov Hurri-Katrina Recovery Web cane page <http://www.firstgov.gov/Citizen/Topics/PublicSafety/ Hurricane_Katrina_Recov ery.shtml>.

FEDERAL GOVERNMENT GRANT TO "HAM AID" WILL SUPPORT KATRINA RESPONSE

The Corporation for National and Community Service (CNCS) <http://www.nationalservice.org/> will provide a \$100,000 grant supplement to ARRL to support Amateur Radio's emergency communication operators in states affected by Hurricane Katrina. The grant will help to fund "Ham Aid," a new League program to support Amateur Radio volunteers deployed in the field in disaster-stricken areas. ARRL Chief Development Officer Mary Hobart, K1MMH, expressed gratitude to CNCS for its generous response. Ham Aid, she said, offers a unique opportunity to support individual radio amateurs helping to bridge the communication gap Hurricane Katrina has caused.

"For the first time in ARRL history, we will be able to reimburse some of the expenses that hams incur in response to a disaster," she said. "We only wish that we could justify an expense reimbursement program like this every time Amateur Radio Emergency Service volunteers are called upon to help in a disaster or emergency, sometimes placing themselves in harm's way."

Hobart said it's only due to the scope of the unprecedented and tragic Katrina disaster that CNCS agreed to help support dedicated Amateur Radio volunteers. "But," she added, "we'd like to think of this grant as a token of appreciation and a recognition of Amateur Radio's value in past emergencies and disasters, such as 9/11."

Hobart says ARRL's Ham Aid program already has received some substantial private donations. Those and the CNCS grant, she said, provide a way for the League to "support our Field Organization as never before."

The CNCS Ham Aid grant is effective for operations established and documented as of September 1, 2005, and the aid is earmarked for Hurricane Katrina deployments only at this point. Guidelines are being established that will permit volunteers who have been involved in bona fide field support operations on or after September 1 to apply for a reimbursement voucher on a per diem basis.

Grant funds may also sustain the Ham Aid program and help to rebuild the emergency communications capabilities in Louisiana, Mississippi and Alabama to ensure that the Gulf Coast is prepared, should disaster strike again.

The CNCS grant is an extension of ARRL's three year Homeland Security training grant, which has provided certification in emergency communication

protocols to nearly 5500 Amateur Radio volunteer over the past three years.

"CNCS grants helped make it possible for the ARRL to train America's hams and make them the best allvolunteer emergency radio service ever seen," Hobart said. "Now they are making it possible for the hams to use that training."

SATERN VOLUNTEERS HAVE PIVOTAL ROLES IN ROOFTOP, ATTIC RESCUES

Amateur Radio was instrumental in saving several stranded flood victims this week in Louisiana and Mississippi. At least one of the incidents received national media attention. On August 29, a call for help involving a combination of cell telephone calls and Amateur Radio led to the rescue of 15 people stranded by floodwaters on the roof of a house in New Orleans. Unable to get through an overloaded 911 system, one of those stranded called a relative in Baton Rouge. That person called another relative, Sybil Hayes in Broken Arrow, Oklahoma, whose 81year-old aunt Helen Elzy was among those clinging to the roof along with other family members.

Hayes called the American Red Cross chapter, which contacted the Tulsa Repeater Organization. Using the Red Cross chapter's well-equipped amateur station, TRO member Ben Joplin, WB5VST, was able to relay a request for help on Salvation Army Team Emergency Radio Network (SATERN) net on 14.265 MHz via Russ Fillinger, W7LXR, in Oregon, and Rick Cain, W7KB, in Utah back to Louisiana, where the ARES net contacted emergency personnel who rescued the 15 people and got them to a Red Cross shelter.

"When all else fails, Amateur Radio works is more than a catchy tag line," says TRO's Mark Conklin, N7XYO. "It's a lifeline." National Public Radio interviewed Joplin about the experience for its "All Things Considered" program on August 30. Fillinger and Cain got attention from regional media for their role in the rooftop rescue.

Cain passed along a similar piece of traffic a day earlier after he got a message that a police officer was stuck in the attic of his house. Cain relayed the information to others on the SATERN net, but he still doesn't know how the police officer's message reached him or if the man was rescued.

SATERN National Net Director Jim Adams, WA0SLB, reports he got a call on the net August 29 from Bill Simpson, KE4WRH, seeking help in locat-

ing two elderly men trapped in their attic in Gulfport, Mississippi, with the water rising. The stranded men called Simpson because they remembered that he was a radio amateur.

"After receiving the traffic, I tried to get a station on frequency who could deliver the message to authorities, but no stations were on," Adams recounted. He called Quentin Nelson, WA4BZY, in Georgia, who's SATERN's national health-and-welfare director, and Nelson was able to contact Salvation Army Capt John Robbins, who, in turn, got in touch with Mississippi State Patrol. Authorities were able to rescue the two men.

Adams says the net handled at least two other messages relating to individuals trapped in attics with the water rising.

Fillinger, a SATERN net controller, also was part of the mix August 29 when the net got word of a family of five trapped in an attic in Diamond Head, Louisiana. The family used a cell phone to call out, but it's not known whom they contacted initially. Bob Rathbone, AG4ZG, in Tampa, says he checked the address on a map and determined it was in an area struck by a storm surge.

Acting on a sudden inspiration, he called the US Coast Guard search-and-rescue station in Clearwater, explained the situation and relayed the information. Rathbone said he was rewarded an hour later by a call from the South Haven Sheriff's Department in Louisiana, which informed him a rescue operation was under way.

"Another search-and-rescue operation I ran with involved three people stuck on a roof, and one was a child," he said. The person was able to send a text message from a cell phone to a family member in Michigan. Once again, the US Coast Guard handled the call.

"Ham radio works when all else doesn't," he concluded.

AMATEUR RADIO AWARENESS DAY TO FEATURE EMERGENCY POWER OPERATING EVENT

What makes Amateur Radio unique is its ability to communicate with one another anywhere in the world--and even in orbit--without having to rely on any outside infrastructure whatsoever. Hams can even do this without being plugged into the wall socket. Experienced radio amateurs take this capability for granted, but the general public is far less aware of it. So, an Emergency Power Operating Event (EPOE) on Amateur Radio Awareness Day, Saturday, September 17, will highlight Amateur Radio's ability to communicate worldwide without commercial mains, the Internet or a cellular telephone system.

"What better way to mark Amateur Radio Awareness Day than by calling attention to this unique capability?" says ARRL CEO David Sumner, K1ZZ. "It is particularly appropriate since September is the Department of Homeland Security's National Preparedness Month."

Amateur Radio Awareness Day activities typically focus on increasing public awareness. Past events have included public demonstrations, talks to community groups and getting local media coverage. According to DHS, National Preparedness Month is aimed at encouraging Americans to prepare for emergencies and to raise public awareness about the importance of being prepared.

This Amateur Radio Awareness Day, September 17, the ARRL will sponsor a 15-hour Emergency Power Operating Event for stations operating off the grid. "It is not a contest," Sumner stresses. "It is simply a demonstration of what we amateurs can do without having to rely on the commercial mains, and what we will do whenever the need arises."

An announcement in September QST (page 49) spells out the details. The event kicks off at 1300 UTC on Saturday, September 17, and wraps up at 0400 UTC on September 18. The ARRL is inviting home stations to operate from generator or battery power. Mobiles and portable stations also are welcome to participate, although unlike Field Day, the emphasis is not on setting up a temporary station, but rather on operating your regular station on emergency power.

There is no set exchange; contacts may be casual, but operators are encouraged to share information on their emergency power sources in addition to the traditional signal report, name and location.

ARRL Maxim Memorial Station W1AW will be on the air for the event, running on emergency power from its 60-kW emergency backup diesel generator. W1AW Station Manager Joe Carcia, NJ1Q, says the whole point is to showcase that Amateur Radio is prepared during National Preparedness Month--"and any time, for that matter," he adds. A special QSL will be available to stations contacting W1AW while running from an emergency power source. Include a self-addressed, stamped envelope with all QSL card requests, and indicate on your card the emergency power source used. (Address cards to W1AW, 225 Main St, Newington, CT 06111.)

"I hope we can work stations operating on emergency power in all 50 states," says Sumner. "It should be a lot of fun, and we may even learn something!"

The League is encouraging participating radio amateurs or groups to invite local Citizen Corps leaders to see Amateur Radio installations in emergency power mode.

"The two events offer great opportunities for Amateur Radio to showcase its valued service to the nation," said outgoing ARRL Field and Educational Services Manager Rosalie White, K1STO. She urged ARRL-affiliated clubs and Field Organization volunteers to take advantage of the occasion to set up public demonstrations of Amateur Radio and to present or even demonstrate--under the banner of National Preparedness Month--the free services Amateur Radio provides to the community.

ARRL Club/Mentoring Program Manager Norm Fusaro, W3IZ, believes a public Emergency Power Operating Event offers a great opportunity to recruit prospective hams for licensing classes clubs that may be forming this fall.

ARISS DELEGATES URGED TO CAST EYE ON FUTURE OF HAM RADIO IN SPACE

The two dozen delegates to the Amateur Radio on the International Space Station (ARISS) International Meeting August 1-2 voted unanimously to study ARISS' involvement in future space exploration. ARISS will establish a committee to develop a strategy and present proposals to the ARISS International Team within the next six months.

"We must begin to think seriously about making solid plans for ARISS, or we will not be ready when it's time to move ahead," ARISS International Chairman Frank Bauer, KA3HDO, told the gathering at the University of Surrey in Guildford, England. NASA already has plans for missions to the moon, Mars and beyond on the drawing board. The new committee will provide updates at ARISS International monthly teleconferences.

Delegates from the five ARISS regions--Japan, Canada, Europe, Russia and the US--convened on the heels of the AMSAT-UK Symposium. At the Symposium, ARISS-Europe team members hosted a session that updated those attending on the ARISS program.

Looking toward the deployment of the European Space Agency's Columbus ISS module, ARISS delegates named a committee to develop a strategy and proposals for Amateur Radio systems on the new module. Columbus already is being made Amateur Radio-ready. ARISS delegates also okayed establishing a project team to make education-related decisions for the Columbus amateur gear.

ARISS-Europe's Gaston Bertels, ON4WF, provided an extensive progress report on Columbus module radio systems, including feedthroughs, cables and patch antennas. The patch antennas, the first designed to conform to the shape of a space module, will be Earth-facing and located near the port cone. Amateur Radio contractors are currently fabricating the antennas, which will provide receive-only coverage on L band (1260-1270 MHz) and transmit and receive capability on S band (2400-2450 MHz) at a maximum power output of 10 watts.

The ARISS Team is on a tight deadline-approximately a year--to design and develop an Amateur Radio system for Columbus, then test, certify and manifest it with the various space agencies. Another Amateur Radio-related task that remains is to install the cables. This is scheduled to happen next February. Delegates heard a presentation on a digital Amateur Radio Television (DATV) system being considered for development and deployment aboard Columbus, set for launch in the spring of 2007.

ARISS delegates also gave the go-ahead for the ARISS Public Relations Committee and ARISS International delegates to publicize the Russian Shadow Experiment. The test would involve the impact on radio communication of electric thrusters (ET) that employ highly ionized plumes to propel a vehicle in space. Testing is scheduled for the November 2005 through January 2006 time frame. The main issue is electromagnetic compatibility between the ET exhaust plumes and onboard communication equipment, since the plasma plumes may scatter RF and produce a communication dead zone or "shadow."

Bauer, Lou McFadin, W5DID, and ARISS-Russia's Sergei Samburov, RV3DR, updated the group on SuitSat. If all goes according to plan, an ISS crew will orbit a surplus Russian Orlan spacesuit equipped with Amateur Radio gear, a DVD of school artwork and other experiments--this fall during a spacewalk. SuitSat will fly to the ISS aboard a Progress supply rocket.

ARISS-US delivered to ARISS-Russia a supply of ARISS logo patches to place on SuitSat hardware containers during their flight to the ISS. Bauer's daughter Michelle has provided the voice for the SuitSat station identification: "This is SuitSat 1--Amateur Radio station RSORS."

ARISS International Secretary-Treasurer Rosalie White, K1STO, reminded delegates that NASA's new administrator is a radio amateur, Mike Griffin, NR3A. She suggested that ARISS meet with Griffin to get him up to speed on the ARISS program.

"It should be expected that most people in NASA leadership positions will change as the new administrator gets settled in his job," she said, "and this will require the US Team to teach many new NASA people about ARISS."

Contest Calendar and DXpeditions

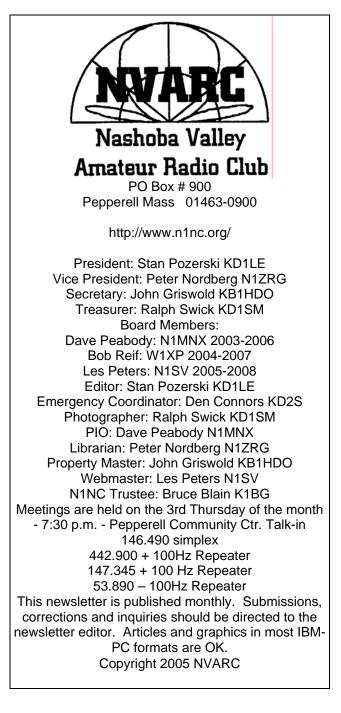
The information for a DXpedition can be quite detailed and may include bands, dates, number of stations, and times of day they plan to work certain continents so I can not list it all here. But if a country or prefix is of interest you can get more information at www.425dxn.org.

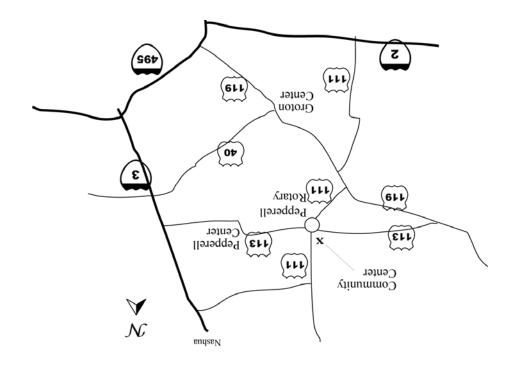
Contests Sep

Sep 10-12 ARRL Sept VHF QSO Party

DXpeditions

Call	Location	Until
9V1CW	Singapore	2008
8Q7WP	Maldives	09/05
5H3HK	Tanzania	March 2006
SU8BHI	Egypt	31 Dec 2005
T68G	Afghanistan	March 2007
ZD8I	Ascension Is	March 2006







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