



# SIGNAL



de N1NC

August 2001 Volume 10 Number 8

## This Month's Meeting

**REMEMBER** this month we have the cookout at Den Connors QTH. Den KD2S will host the club cookout on the regular meeting night August 16<sup>th</sup>. Bring your grub to barbecue. The club will provide soft drinks and chips. Den is setting up an HF special event station. Directions to Dens house are elsewhere in the newsletter.

Bring your short Shows-and-Tell to the meetings. They are always welcome. Its always interesting to see the variety of things people are working on.

Through the summer we still gather at Tiny's for breakfast Saturday mornings at 8:00 AM. We sit in the back dining area.

## Last Month's Meeting

Being on our Summer break there was no July meeting but don't forget the cookout!

## Welcome to New Member

Welcome to new member Steve Uutamo WA4LDL. The June meeting was Steve's first and he endured the Constitutional discussion. We hope he comes back. HiHi.

## Directions to the Picnic

Dens house is number 80A on Rt 111, Nashua Rd in Pepperell. Rt 111 runs out of the rotary in front of the Community Center where we usually meet. Dens house is on the left side about two miles from the Community Center. From the Community Center 0

miles, Rt 111 turns right at about 1 mile, past a yellow blinking light, and then past Lomar Industrial Park at about 1-1/2 miles. We will hang the club banner somewhere near the street to help everyone get there.

## Adopt A Highway

Sunday July 22nd we completed our June/July road clean up. Eight members helped out and the roadway looks much better for it. Thanks to the following members for their support; Ralph KD1SM, Erik KA1RV, Erik W1ZBT, Scott W1XJ, Jim AA1PO, Bob W1XP, Pat N1VAV, and Stan KD1LE. The next clean up will be August 19th. Hope to see you there.

## Board of Directors Meeting

Due to the Summer break there was no Board meeting this month. If anyone has matters that need to be addressed by the Board they can bring them up at the cookout.

## Field Day Notebook

We now have a document designed to provide a resource for future Field Day planning. It is intended to capture what was planned for each Field Day and how the event actually went. This should make it easier for anyone, whether a veteran or first timer, to take advantage of knowledge gained over the years. This book will be kept with the club records

## Public Service

Listing public events at which Amateur Radio communications is providing a public service and for which additional volunteers from the Amateur Community are needed and welcome. Please contact the person listed

to identify how you may serve and what equipment you may need to bring.

Every event listed is looking for volunteers  
Date Location Event Contact Tel/Email

Sep 2 Cambridge MA Monster Triathlon  
Bob WA1IDA 508-650-9440 [wa1ida@arrl.net](mailto:wa1ida@arrl.net)

Sep 8-9 Brighton MA WGBH Ice Cream FunFest  
Bob WA1IDA 508-650-9440 [wa1ida@arrl.net](mailto:wa1ida@arrl.net)

Sep 30 Hopkinton MA Jimmy Fund Marathon Walk  
Bob WA1IDA 508-650-9440 [wa1ida@arrl.net](mailto:wa1ida@arrl.net)

Oct 13 Boston MA ADA Walk for Diabetes  
Bruce KC1US 781-275-3740 [kc1us@cyberzone.net](mailto:kc1us@cyberzone.net)

Oct 14 Brookline MA BAA Half-Marathon  
Bob WA1IDA 508-650-9440 [wa1ida@arrl.net](mailto:wa1ida@arrl.net)

This list is published periodically as demand warrants by Stan KD1LE and Ralph KD1SM. Our usual distribution is via packet to NEBBS, via Internet mail to the arrl-nediv-list and ema-arrl distribution lists, and on the World Wide Web (see URL below). If other mailing list owners wish us to distribute via their lists we will be happy to oblige. Permission is herewith granted to republish this list in its entirety provided credit is given to the authors and the URL below is included. Send comments, corrections, and updates to:

(via packet) KD1SM@K1UGM.#EMA.MA.USA,  
(via Internet) KD1SM@ARRL.NET.

We make an attempt to confirm entries with the coordinator unless the information is from another published source. We very much appreciate the assistance we have been receiving from our 'scouts'; everyone is welcome to send us postings.

The most recent copy of this list is maintained as <http://purl.org/hamradio/publicservice/nediv>.

### Condolences

Condolences to Herm Raymond WW1HR whose wife Charlene passed away August 4<sup>th</sup>. They were married 45 years.

### Groton Road Race

[We received the following letter from the Squannacook River Runners accompanied by a donation of \$125 -Eds]

Dear Nashoba Valley Amateur Radio Club,

Thank you for participating in the 10th Annual Groton Road Race on April 29. I sincerely hope that your day was as good as ours. We believe it was our most successful day ever.

Please accept a check for \$125 on our behalf for your efforts.

Pledges for Cancer Research raised \$1,341 and the proceeds from the road race allowed the club to contribute another \$3,000 for a final tally of \$4,341 to cancer research. This amount has been sent to the New England Medical Center Cancer Research Unit in Boston where it will be split equally between the Breast Health Center, research for Non-hodgkins Lymphoma and research for Gynecological Malignancies.

In addition we have supported running within the community by providing 10 running scholarships for local high school athletes for summer running camps, as well as track and field equipment for the regional school.

Other community groups receiving support from the proceeds are:

Team Hoyt  
Nashoba Valley Amateur Radio Club and BARS  
Groton EMS  
Groton Auxiliary Police  
Peter Twoomey Center  
G-D High School Band

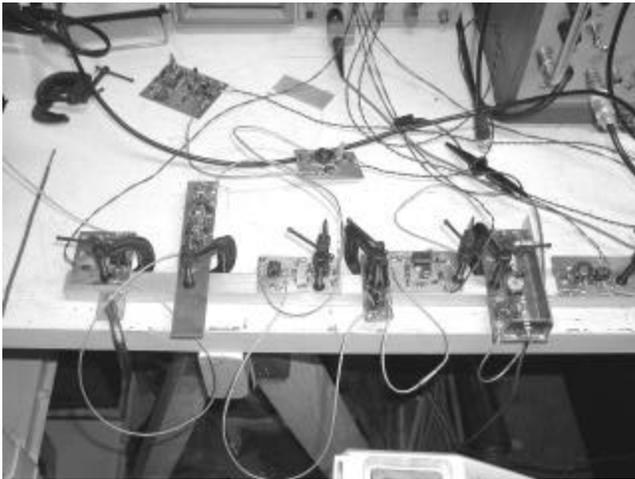
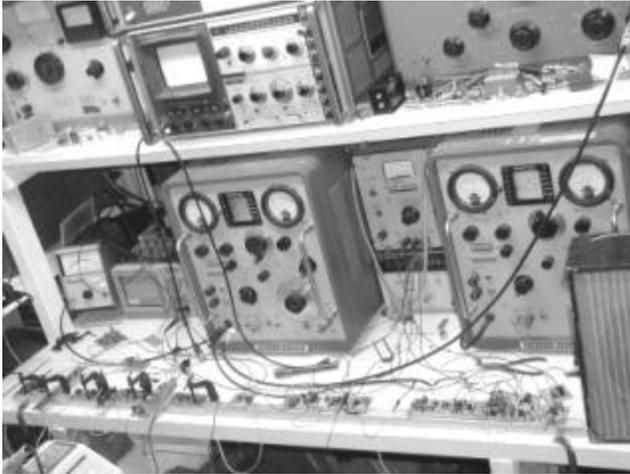
We hope you will mark your calendars for the 11th Annual Groton Road Race scheduled for April 28, 2002. Registration will be open on January 1, 2002.

Sincerely,  
Kevin Molloy  
Race Director

### Repeater Improvements

There is always plenty to do to keep any system running and repeaters are no exception. The two pictures below are a new receiver for the six meter repeater being that is being designed and built by Bob W1XP. Note the 'clamp' circuits in the pictures. Hihi.

His modular design allows him to build and test the circuits in small bits.



There are also all sorts of general maintenance items that need to be taken care of or improved on. Below Bob W1XP is working on improving the ventilation to the repeater shack. Bob is attached to the feet visible through the ladder. Stan KD1LE is comparing the new vent size to the hole in the wall and there seems to be a miss match. Actually the hole that can be seen in the upper right picture was from the previous small vent opening and fan.

A task completed several weeks earlier had been to replace the undersized air intake vent which is just visible on the lower right side wall. Here we are replacing the outlet fan and vent with appropriately sized ones.



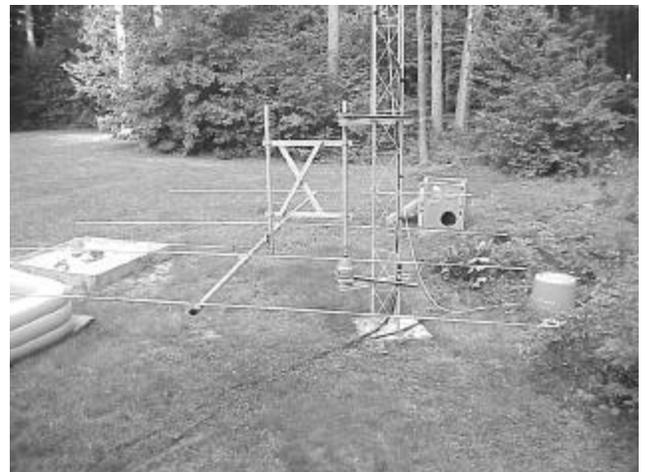
After a few hours of work the vent is installed and the fan connected to the thermostat. With improved air flow the building, and its equipment, now stay much closer to the ambient temperature, even on hot days, which is the best you can do without air conditioning. Last is a picture of the antennas and tower.

### N1SV Upgrades

Les N1SV wanted to take advantage of some of the unused space on his tower (see below). So he added side mounted 15 and 10 meter antennas. Here Les talks over the tasks to be completed with part of the ground crew.

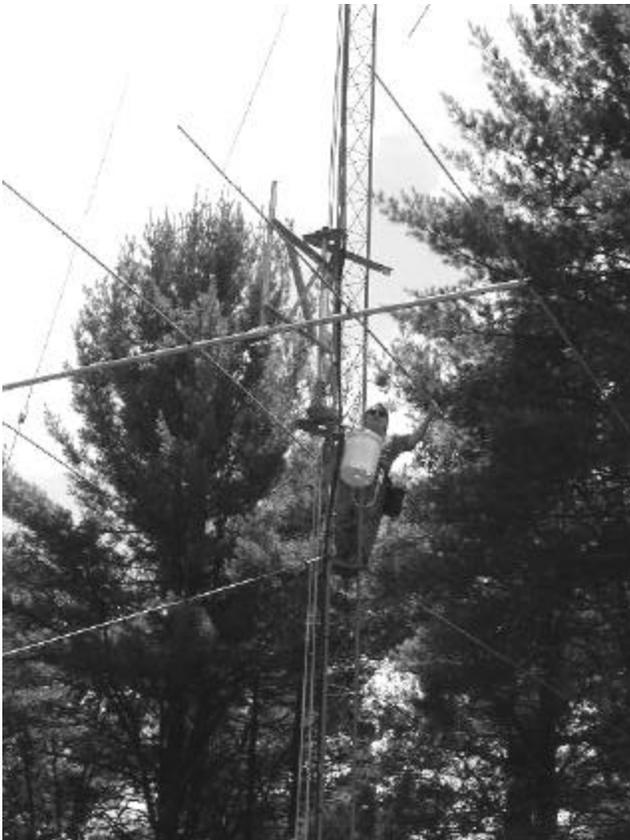


Below is a picture of the 'swinging gate' mount and the ten meter antenna in its test position before it went up the tower. The purpose of the 'gate' is to move the antenna away from the tower to increase the range of rotation. This photo by Dave N1MNX





Admiring the two new antennas are Dave N1MNX and Stan KD1LE part of the ground crew.



### Groton National Night Out

Karen KA1JVU and Dan N1LLG set up a table with Amateur Radio information at Groton's event on August 7<sup>th</sup>. The purpose for the National Night Out event is for local public safety organizations to display their equipment.





Above is an air scent dog owed by a Groton resident who is a Groton EMS volunteer.

### From The ARRL Letter

#### ARRL, AeroAstro SQUARE OFF OVER 2300-2305 MHZ

In a spectrum battle pitting Amateur Radio against a commercial interest, the ARRL and AeroAstro this

week filed comments with the FCC to bolster their respective--and competing--proposals for 2300 to 2305 MHz. ARRL has petitioned to elevate the Amateur Service from secondary to primary status on the band and requested that no commercial operations be introduced. AeroAstro seeks co-primary status with the Amateur Service to accommodate a Miscellaneous Wireless Communication Service satellite-based position-monitoring system.

The FCC put both petitions on public notice last month. There is no primary occupant at 2300-2305 MHz. The ARRL characterized AeroAstro's petition as "a Trojan horse" and came out with both barrels blazing. "There is nothing contained in the four corners of the AeroAstro petition that would indicate the extent of compatibility between incumbent and future Amateur operation and the open-ended MWCS operation proposed by AeroAstro," the ARRL asserted. Given the unpredictable and mobile nature of Amateur Radio and AeroAstro's proposed use, the League said, "There is no possibility whatsoever of coordination of operations between auctioned MWCS and Amateur operations in the band."

AeroAstro claims in its comments that the 1 W spread-spectrum uplinks of its proposed Satellite Enabled Notification System (SENS) and Amateur Radio can share the 5 MHz of spectrum and still protect the nearby NASA Deep Space Network. While asserting that it "does not seek to cut back current Amateur operations in the band," AeroAstro also called on the FCC to impose severe power and antenna limitations on hams at 2300-2305 MHz.

Under the AeroAstro petition, Amateurs would be limited to 100 W output and antennas with a beamwidth no greater than 5 degrees for "narrowbeam" operation such as Earth-Moon-Earth communication. For other operation, AeroAstro wants the FCC to limit amateurs to 25 W EIRP.

"This is totally unacceptable," the ARRL retorted in its comments. "It is preclusive of most Amateur operation in the band." The current situation, where no service is primary, is preferable to such a sharing arrangement, the ARRL said. A co-primary allocation such as AeroAstro proposes also would make no provision to mitigate interference. AeroAstro's mobile SENS consumers, the ARRL said, "would not be able to meet any standard of responsibility in addressing interference avoidance and remedies relative to Amateurs."

The ARRL said the FCC already has made "adequate accommodation" for services such as the one

AeroAstro has proposed "without compromising the 2300-2305 MHz Amateur allocation." Calling on the FCC to either dismiss or take no action on the AeroAstro petition, the League noted that a proposal now pending before the FCC would allocate 1670-1675 and 2385-2390 MHz "for exactly the type of use proposed by AeroAstro."

### **MIDWEST YOUNGSTERS GATHER AT "ZERO-DARK-30" FOR ARISS QSO**

Seventeen Indiana elementary and middle schoolers got up extra early July 31 to speak via Amateur Radio with International Space Station crew member Jim Voss. The youngsters, who attend five Hobart-area schools, gathered before 4 AM at Joan Martin Elementary School to participate in the Amateur Radio on the International Space Station contact. All 17 got to ask a question of Voss, who was in his usual high spirits.

In answer to one youngster's question, Voss said the most unexpected thing he'd encountered in space was when the three main ISS computers had problems at the same time. "We never thought that would happen," he said. "Luckily, the people on the ground who support our flight were able to figure out what to do, and we were able to solve the problem and all of our computers are working properly."

As for the most exciting thing, Voss told the students that space walks have been "a remarkable experience" for him each of the four times he's gone out. Being launched into orbit was "quite an exciting ride," he said. Getting into space takes about eight minutes, he explained, but then it takes another two days to catch up with the ISS.

Voss said he expects a hamburger--which he has not had since he went into space nearly five months ago--and ice cream--which is not available on the ISS--to be among the first things he'll want to eat when he returns to Earth later this month.

Asked about how trash is disposed of on the ISS, Voss explained that the crew stows its trash in bags similar to the ones used on Earth for that purpose. The rubber bags are sealed up and eventually stowed aboard an empty Russian Progress cargo vehicle, he explained. "And then, that rocket goes back into the Earth's atmosphere after it's full and it's all burned up and destroyed," he said. Some trash also goes back to Earth aboard the shuttle when it visits the ISS.

Before signing off, Voss urged the youngsters to continue studying space and to "reach for the stars."

Mike Frank, KF9WW, who handled Earth-station chores at the school, called the contact "a huge success." Some of those involved also got to see the ISS pass overhead.

"Hams assisting with monitoring the tracking of the antennas from the rooftop reported a spectacular visual sighting of the ISS, which included a 'flare' of the spacecraft near the peak elevation of 83 degrees," Frank said. "Unfortunately, most of us missed that part of the excitement." The ISS is about 210 miles above Earth.

Voss and the Expedition 2 crew of Susan Helms, KC7NHZ, and Crew Commander Yury Usachev, RW3FU, are scheduled to return to Earth in about three weeks.

ARISS is a cooperative program of ARRL, AMSAT and NASA. More information is available at the ARISS Web site, <<http://ariss.gsfc.nasa.gov>>.

### **HAMS HELP HANDLE 911 OUTAGE**

Members of the Stafford County, Virginia, Amateur Radio Emergency Service sprang into action the evening of July 27 after the county's 911 Center lost all incoming telephone trunks. The telephone company rerouted incoming 911 calls to a local high school. Stafford County's Emergency Communications Director deployed two dispatchers to take calls at the school and alerted the Stafford County Amateur Radio Association to assist in passing message traffic to the 911 Center. Hams activated an emergency net on the Stafford 2-meter repeater to relay 911 traffic between the high school and the 911 Center, where ham gear is permanently installed. With another radio set up at the school, the hams were prepared to relay call information to the 911 Center. The telephone switch was brought back on line approximately 90 minutes after the disruption began.--Emmett Price, K3EP

### **IN-FLIGHT SPECIAL EVENT SET FROM RESTORED PAN AM STRATOCLIPPER**

A restored Pan American Airways Boeing B-307 Stratoclipper with ham radio aboard will take off next week from Seattle. A group of retirees from Pan Am and Boeing, and some current Boeing workers--hams among them--restored the antique aircraft to flight status. Chuck Driskell, W7ZIR, will conduct an in-flight special event operation on HF as the plane heads for the Experimental Aircraft Association Fly-In in Oshkosh, Wisconsin.

The plane--Flying Cloud, NC 19903--now is being prepared for the multi-hop flight to Oshkosh starting July 23 and arriving in Oshkosh the next day. The return flight is scheduled to take off July 30 or 31. Driskell is expected to be on the air during the return trip as well.

Driskell expects to operate CW on or about 3.545, 3.680, 7.040, 7.050 and 7.060 MHz, and AM on or about 3.875, 3.885, 7.285 and 7.290 MHz. The aircraft's 75-W transmitter feeds a fixed antenna mounted on a mast above the radio position and extending back to the aircraft's tail.

One of only two known remaining pre-jet Pan American Airways planes, the restored B-307 is in virtually the same condition as when delivered to PAA in 1939. The B-307's inaugural post-restoration rollout at Boeing-Seattle on June 23 was a big success and attracted a crowd of onlookers that included TV reporters and aviation-magazine writers.

During last month's shakedown flight, Ralph Conly, N6VT, made a nostalgic in-flight QSO with Craig Stewart, K7SKP, using the plane's original Pamsco communications equipment. Conly had last used the same radios in the fall of 1941. The crew operated the plane's original radio gear on 80 and 40 meters while in flight, using CW and AM.

Former Pan Am flight engineer Bob Stubbs started refurbishing the plane more than 12 years ago. Later, Boeing took over the project and decided to restore the plane to flying condition. "It is due to Bob's early work that we have her today," said Conly.

The plane is owned by the Smithsonian Institution and will eventually be displayed at the new museum facility at Dulles Airport in Virginia. For more information, contact Ralph Conly, <etconly@aol.com>.

#### **AMATEUR RADIO GETTING GOOD VISIBILITY AT 2001 NATIONAL JAMBOREE**

Amateur Radio will have a high profile during the Boy Scouts of America 2001 National Jamboree that opens July 23, at Fort A.P. Hill in Northern Virginia, and continues through August 1. An estimated 40,000 Scouts and leaders are expected to turn out, and some 45 Amateur Radio operators at K2BSA/4 will be among those on hand to greet them. ARRL Headquarters staff member Larry Wolfgang, WR1B, will attend this year's Jamboree.

This marks the 15th National Jamboree, which dates back to 1937. During this year's event, K2BSA hopes to complete a ham radio contact with the crew of the International Space Station as part of the Amateur Radio on the International Space Station--or ARISS--project.

At this year's Jamboree, K2BSA will have four HF operating positions for general operation on 80, 40, 20, 15, and 10 meters, plus a VHF station with a 2-meter multimode rig. Licensed Scouts will be encouraged to operate, with staff members standing by to help as needed, or to serve as control operators for unlicensed Scouts. Most K2BSA operation will be on voice, but there will be some CW operation, especially in the evenings or during the night. K2BSA/4 will operate on or near the established world Scout frequencies: 3.940, 7.290, 14.290, 21.360, 28.360 and 28.990 MHz on SSB and 3.590, 7.030, 14.070, 21.140, and 28.190 MHz on CW. Operation on satellites, digital modes and SSTV also is anticipated.

A special commemorative K2BSA QSL card has been designed. To receive a QSL card for your contact, send a self-addressed, stamped envelope with your card to K2BSA Amateur Radio Association, 303 Westover Dr, Euless, TX 76039.

Hams at the Jamboree will be teaching Radio merit badge and Technician

license classes. ARRL/VEC coordinated exams will be given. Wolfgang plans to help with Radio merit badge classes and handle other duties at the Jamboree.

Wolfgang encourages all to look for K2BSA/4 on the bands and spend some time talking with Scouts at the Jamboree. "If you ask them what they've been doing, be ready for some enthusiastic responses about all kinds of outdoor adventures!" he said. "The fun never stops at a Jamboree!"

For additional information, visit the K2BSA Ham Radio Web site, <<http://www.bpmllegal.com/k2bsa.html>>.

#### **HAMS ERECT A REPEATER FOR THE NATIONAL WEATHER SERVICE**

Eldon Kearn, KB7OGM, and John Lloyd, K7JL, of Sandy, Utah teamed up to provide a NOAA-Weather radio station, transmitting from a hilltop overlooking the southern end of Bear Lake. In the course of building and maintaining Amateur Radio repeaters in northern Utah, Kearn and Lloyd saw the need for a stronger NWS signal into the Bear Lake Area. Because of mountain interference, many locations in the area were

not able to receive the weather radio signal from Logan Peak. "Amateurs provided the site, a UHF receiver, installation, and will provide power maintenance for the transmitter site," said David Toronto, Warning Coordination Meteorologist for the National Weather Service. NWS provided the UHF link transmitter, UHF transmitter, maintenance, weather radio frequency, and a continuous signal to the transmitter from the Salt Lake City office, he said. For additional information, contact Dave Toronto <dave.toronto@noaa.gov>.—David Toronto/NWS

## August Treasurer Report\$

Income for July was \$161.48 net from FoxFinder kit sales and \$1 from WX1J who found it by the side of the road during Road Cleanup. Expenses were \$34 for newsletter and miscellaneous postage (2 months), \$28.56 for Field Day expenses and \$3.68 for a sympathy card leaving a net income of \$96.24.

We also received a donation of \$125 from the Squannacook River Runners Association as a 'thank you' for assisting with the Groton Road Race in April. This has been added to the Community Fund.

Fund balances as of June 14 are:

General Fund	\$5316.27
Community Fund:	\$1317.55

If your ARRL renewal is coming up soon or you haven't yet joined ARRL and wish to do so, I can mail your paperwork for you. Make your check payable to NVARC and I'll do the rest. The ARRL rebates a portion of your membership to the Club when I do the mailing.

73,  
-Ralph KD1SM



## 2001 Fleamarkets

19 Aug 2001 x MIT Radio Society/Harvard Wireless Club/MIT UHF Repeater Assn.  
<http://web.mit.edu/w1mx/www/swapfest.html>

1-2 Sep 2001 \* Eastern VHF/UHF Conference  
Eastern VHF/UHF Society & North East Weak Signal Group, Enfield, CT

9 Sep 2001 + Mohawk ARC, Orange, MA

16 Sep 2001 + Western Connecticut Hamfest  
Candlewood ARA, Newtown, CT

16 Sep 2001 x MIT Radio Society/Harvard Wireless Club/MIT UHF Repeater Assn.



## Nashoba Valley Amateur Radio Club

PO Box # 900  
Pepperell Mass 01463-0900

mailto:[nvarc\\_n1nc@arrl.net](mailto:nvarc_n1nc@arrl.net)  
<http://purl.org/hamradio/club/nvarc/>

Pres.: Erik Piip KA1RV  
V Pres.: Earl Russell WR1Y  
Secretary: Ian Norrish NZ1B  
Treasurer: Ralph Swick KD1SM  
Editor: Stan Pozerski KD1LE  
Photographer Ralph Swick KD1SM  
PIO: open

Board Members

Bob Reif 1999-2002

Den Connors 2000-2003

Craig Kalley 2001-2004

Meetings are held on the 3rd Thursday of the month -  
7:30 p.m. - Pepperell Community Ctr. Talk-in 146.490  
simplex

442.90 + 100Hz Repeater

53.890 - 100Hz Repeater

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. You can send items to

[pozerski@net1plus.com](mailto:pozerski@net1plus.com)

Copyright 2001 NVARC