



SIGNAL



de NINC

February 2006 Volume 15 Number 2

This Month's Meeting

This month's meeting will be February 16th. The presentation will be by Skip K1NKR on GPS.

Last Month's Meeting



Courtesy KD1SM

Tee shirts for crew that worked the ARISS contact at Hawthorne Brook School were passed out by Stan. Receiving shirts were Gary K1YTS, Les N1SV, Bob W1XP, Stan KD1LE, Joel W1JMM, Richard KB1MBR, and Larry KB1ESR. The shirts were donated by Mrs. Marilyn Richardson N1CSH the teacher who initiated the event. The shirts featured ARISS contact and date info on the front and a drawing of the ISS on the back.



Courtesy KD1SM

Marilyn presented the club a framed picture taken at the event of the students and our crew. The photo was signed by Mrs. Richardson and each of the students.

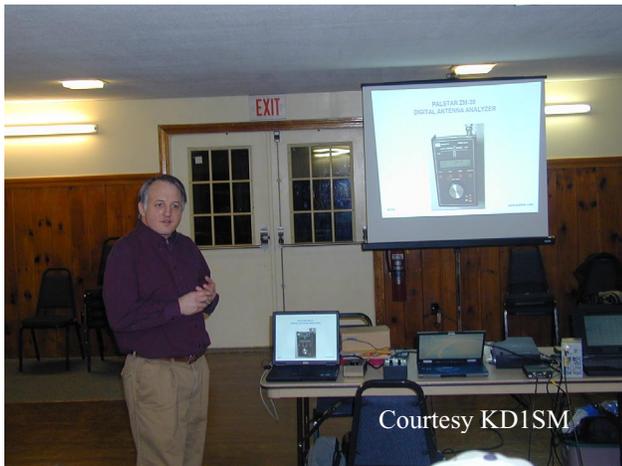


Picture courtesy of KD1SM

Ralph reported the Groton Road Race would be April 30th.

Stan reported the Parker Classic Road Race on Devens will be May 21st.

The program was "Members Short Subjects."



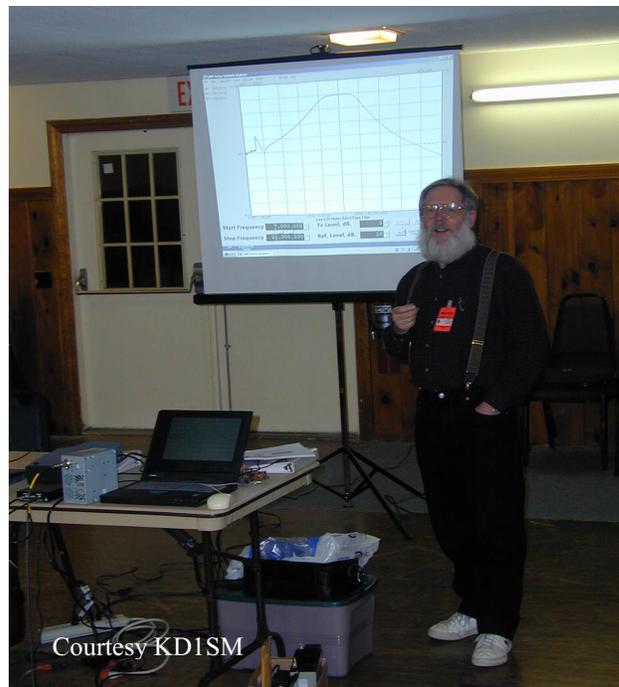
Courtesy KD1SM

Les N1SV presented an overview of the Palstar Antenna Analyzer. The Palstar is pictured below left next to the MFJ antenna analyzer.



Courtesy KD1SM

Ralph KD1SM presented on the West Mountain Battery Analyzer.



Courtesy KD1SM

Bob W1XP presented on the TenTec 6000 Vector Network Analyzer.

Present at the January meeting were: KD1LE, KD1SM, N1ZRG, KK1X (previously KB1HDO), K1JKR, K1NKR, K1LK, KB1ESR, KB1JKL, KB1MBR, W1TRC, KB1LZH, KA1VOU, N1MNX, K1YTS, KB1KEF, K1LGQ, N1CSH, W1JMM, K1BG, N1SV, Dale Sinclair, WA1TAC.

Operating In Denmark

By K1JKR – Ken Atkins
January 20, 2006

Preface: This article tells of my operating experience while visiting Denmark in August of 2005 and some prior operating in Europe in the early 60's. There are also some general tips for operating in Europe, plus a couple of unique Danish Radio Amateur websites.

This past August my XYL and I traveled to Denmark to celebrate our 41st wedding anniversary, to visit family and friends. My XYL was born and grew up in Denmark and where we were married.

In preparing for this trip, I wanted to operate in Denmark and needed to travel lightly so I decided to take my Yaesu VX5R hand-held, with spare batteries, instruction manual, several blank pages of my log book to keep track of my contacts, Danish ham repeater listings, Danish ham repeater map, a map of

Denmark, and a Franzus "Auto Adjust Smart 2000 watt, 220 volt to 110 volt power inverter to power various chargers for my camera, radio, and the XYL's hair dryer.

As we were going to travel around Denmark with family and friends and wanting to access the various repeaters, if I had time and to program my HT before leaving. I searched the web and found the E.D.R.'s web site, www.edr.dk, Experimenterende Danske RadioAmatorer, (Danish equivalent of our A.R.R.L.). I then went to the VHF group link at the bottom of the web page for repeater listings. The VHF group web page listed the repeaters, their location and frequencies, along with a map for 10M, 6M, 2M, 434 MHz, and 1296 MHz bands showing the repeater numbers, another map showing what PL tone to use in each section of the country. I found this site too be very useful and is where I used most of my information. This is another useful web page, <http://www.oz2bc.webbyen.dk/>, in English, has some links to other Danish Radio Amateur web sites and which also gives some repeater listings.

Throughout Europe, the repeater numbers are used for each of the ham bands. For 6M it would be RF81 to RF87, 2M RV48 to RV63, and for 434 MHz, RU368 to RU 398. The repeater INPUT frequency range and splits for each band is as follows: 6M – 51.210 thru 51.370 with a +600 KHz split, and a 20 KHz spacing between the repeater frequencies, 2M – 145.000 thru 145.1875 with a +600 KHz split and a 12.5 KHz spacing between the repeater frequencies, and 434 MHz – 433.000 thru 433.3750 with a 1.6 MHz split and 25 KHz split between repeater frequencies. An interesting side note, the same R* number can be used throughout the country and Europe, but the PL tone would be different.

On the western coast of Sweden the same R* numbers were used. While scanning the repeaters in the morning, I could hear a couple of the Swedish repeaters but could not access them even though I tried different PL tones. Running 5 watts inside the house and a 100 mile or so distance was perhaps asking too much.

To operate in Europe, go to the ARRL web site; look for International Operation, then to Operation Overseas by US Amateurs. Also, be sure to read Miscellaneous Information Operating Overseas. This web page gives you all the necessary information to operate overseas. Following those instructions will ensure trouble free operating. Make sure you download and print out a copy of the CEPT Agreement for European operation. There is also information about operating in other countries as well.

On this same page, it lists European Repeater Listings – I tried the link and noticed the web page was last updated in 1999. Most of the links seem to be invalid. Try the National Amateur Radio Operation of the country you are going to visit.

IMPORTANT NOTE: you will also need with you a copy of your F.C.C. Ham License attached to the F.C.C. Public Notice: Amateur Service Operation in C.E.P.T. Countries. You will also need your original license with you, plus your passport handy when you operate in case you are asked for it by the local authorities. I would also suggest that you take copies of your receipts for the radio equipment you are bringing, with a cover letter listing the equipment's model number and serial number and a brief note stating this is your own personal equipment and that you will be taking it out of the country when you leave. This may also be needed when re-entering the United States as proof that the equipment was purchased here. U.S. Customs also has a form to fill out where they will need to see your equipment prior to leaving as proof that you purchased the equipment here.

During what little free time I had visiting with family and friends and traveling, I managed to make a few contacts, notably OZ4AAM - Borge and OZ5KM – Kjeld on a repeater about 40 miles from where I was staying in Aarhus. This repeater, RV 54, is located on top of Denmark's "highest mountain", 583 feet high, with an ERP of 200 watts. These hams were extremely helpful and easy to talk to. Most of the hams have an excellent command of the English language. While traveling around Denmark, I noted most of the repeater sites were part of an overall communication site, containing microwave, cell phones, and public safety communications.

2 meters and 430 MHz were the most numerous of the repeaters located throughout Denmark. 6-meter repeaters were only located around Copenhagen. One thing to pay attention to is their band plan is different than ours. They do not have the entire band as we do.

Again, from the E.D.R. web site, I noticed that there was a radio amateur museum near Copenhagen. Staying outside of Copenhagen, I made a phone call to the museum for details. As luck would have it, they were to be open Monday night from 7 PM until 10 PM along with having a club meeting. My gracious host living only 15 minutes away drove me to the clubhouse where I had a tour and took lot of pictures of their displays. Most of the equipment was homebrew extending over quite a few years of our hobby. There was even a display of old vacuum tubes. Unfortunately, due to time constraints and

eyeball qso'ing with many of the members, I did not have a chance to get a complete tour of the building. The members were all very gracious, friendly, and knowledgeable. The club call sign is OZ5MUS. We exchanged eyeball QSL cards. Their club and membership is very active and has received numerous operating awards.

For a web tour of the OZ5MUS Club house, go to: <http://www.hamradio.dk>. Then click on "Huset". The following web site, <http://www.oz5edr.dk/museum/>, shows other pictures of the Museum and Officers of the club. OZ1LNZ, Ralph, was my very knowledgeable tour director. At this site click on "Udstilling", which means exhibit, to see more pictures of the museum, and "Station" to see a part of their station? Most of these sites are in Danish, but the pictures are worth viewing. For more museum pictures go to <http://www.qrv.dk>, then click on Radio Amatorenes Museum.

Another interesting Danish Ham web page is <http://www.hamband.com/>. Click on video to see and hear OZ1XJ in a top hat and tuxedo and OZ1ADL singing on a 150-foot tower – yes that is correct. You will need the trial version of Real Audio to watch and hear it. About 12 years ago, I talked with OZ1ADL. His QTH is about 15 miles west of my brother-in-laws house. Unfortunately, I did not have the time to stop by and chat. The countryside as seen from the tower is fairly typical of Denmark.

By the way, this is the second time I have operated in Europe as a ham. 44 years ago while stationed in Germany with the Air Force I operated as DL4NA on 10 meters with a Gonset G-28 10 Meter transceiver. I also had a M.A.R.S. call sign both in Germany and also in Mallorca Spain. Spain at that time did not allow foreign radio amateur operation, so I operated the base M.A.R.S. station and had a weekly AM and RTTY contact with another ham on the mainland on 40 meters. While in Spain, I did attend a couple of flea markets and had a chance to talk with some of the locals. My voice has since been back to Mallorca and I have had some nice chats about Mallorca and my experiences.

In closing, I had a wonderful and fun time with ham radio in Denmark operating as OZ/K1JKR. I still remember fondly my memories from operating in Europe 44 years ago. It was an easy and pleasurable way to make new friends, plus noting how they operate. I would encourage you that anytime you travel, take at least an HT along and get to meet the locals. It's a great way to find the best of everything locally and make new friends.

Board Meeting Notes

Due to the newsletter printing schedule the Board meeting notes were not available.

NVARC Website

Les N1SV has been updating the Website. The top page now includes a link to an ARISS contact page. This page has an expanded description of the Hawthorne Brook School project and links to photos and the contact audio. There is also a detailed document available there that describes the preparations and event in even greater detail. This document is intended to be of help to a person or group who are asked to set up such an event and had no experience in this area. This document was written by Stan with info and segments by Bob W1XP, Joel W1JMM, and Larry KB1ESR and is over 20 pages long. Check it out.

Advertisements

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



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HOLLIS, NH 03049

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2006 Flea Markets and Conventions

- February
18 Algonquin, Marlboro
Marlborough Middle School
- March
26 Spring Flea Market, Framingham
- April
8 IRS Hamfest and Flea Market
9 Londonderry, NH

Treasurers Report

Income for January was \$30 in membership dues, \$1.61 from bank savings interest, and \$10 from ARRL membership renewals. Expenses were \$15.60 for newsletter postage, \$69.75 for the outgoing QSL bureau, and \$46 for the annual Post Office box fee, leaving a net expense of of \$89.74 for the month.

Current balances:

General fund	\$4466.45
Community fund	\$2071.83



Welcome to new member Jim Hanson W1TRC. Jim came to our November meeting at the invitation of Pete KB1LZH and brought his ultrasonic power line arc detector (to appear in a future QST).

As of 4 February we have 61 current members and four renewals outstanding. Please check your newsletter mailing label for your expiration date. If you pick up the newsletter from the Web site only I will send you a reminder by email if your renewal is overdue.

Remember, when your ARRL membership renewal time comes you can send it in via the Club and save yourself postage. You also contribute to the Club Coffers, as the Club is permitted to retain part of the dues when we forward it for you. And if you are not yet an ARRL member, please consider joining. Your support of ARRL gives you access to special members-only material on the ARRL Web site and helps ARRL in its efforts to show how Amateur Radio benefits the public.

Ralph KD1SM

NVARC Club Net

The club net meets on the 442.900 repeater. Recent participants include Dave N1MNX, Bob W1XP, Bob AB1CV, Joel W1JMM, John KK1X, Larry KB1ESR, Skip K1NKR, Gary K1YTS, Ralph KD1SM, Stan KD1LE, Don AB1DS, Les N1SV, Richard KB1MBR, and Peter KB1LZH. Recent discussions are ISS wrap up, repeater work, meeting information, tools needed, 50th anniversary of the current phonetic alphabet, possible field trip destination, and the SuitSat event.

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.

NVARC Sized

Although NVARC is a relatively small club it shines when it comes to building, authoring, and doing. Since "building" takes "stuff" it was little surprise that when Bruce K1BG offered to coordinate a bulk purchase of quality coax the list of interested individuals grew rapidly. Arrangements were made locally to have it delivered where there was a fork lift truck. This facilitated the offloading from the delivery truck and loading into our local delivery vehicle.



Above is the skid of fifteen reels of coax, all 15,000 feet and 1550 pounds of it.

Adopt-A-Highway

The last cleanup was November 19, 2005. We held the cleanup directly after our Saturday breakfast.

We meet at the Nashua River common at 9:00 AM. Our clean up day is Saturday after breakfast.

The next road cleanup is Saturday April 22nd 2006.

Club Member Gets 15 Minutes of Fame



Titled "World and beyond beckons Pepperell HAM radioman" Stan KD1LE was interviewed for a local paper. The article noted various community service projects such as surveying the fire hydrants by GPS to complete one layer of the towns GIS system and the installation of high speed point to point wireless network nodes connecting town buildings. As the title hints many activities relating to radio were mentioned such as Stan's participation in RACES and MARS, the recent NVARC ARISS contact, NVARC's support for local events such as the Groton Road Race, amateur radio support of the Boston Marathon and amateur radio support after Katrina were mentioned.

ARRL Letter

FCC ORDERS AMATEUR RULE CHANGES TO CONFORM WITH WRC-03

The FCC has ordered several rule revisions to implement changes agreed to at the international level during World Radiocommunication Conference 2003 (WRC-03). Acting Wireless Telecommunications Bureau Chief Catherine W. Seidel signed the Order, released January 19. The changes affect §97.111, Authorized transmissions; §97.113, Prohibited transmissions; §97.115, Third party communications, and §97.117, International communications.

"These amendments will ensure that the Commission's Amateur Radio Service rules conform to Article 25 of the international Radio Regulations adopted at the 2003 World Radiocommunication Conference, and will further the Commission's ongoing efforts to streamline its Amateur Service Rules," the FCC said. "The overall effect of this action is to update the Part 97 Amateur Radio Service rules in the Code of Federal Regulations to conform to now-effective international agreements."

The rule changes will become effective upon publication in The Federal Register. The FCC Order revises:

* §97.111(a)(1) to permit "transmissions necessary to exchange messages with other stations in the Amateur Service, except those in any country whose administration has notified the ITU that it objects to such communications. The FCC will issue public notices of current arrangements for international communications." The old language permitted communication among amateur stations in different countries "except those in any country whose administration has given notice that it objects to such communications." The FCC said the change does not prejudice its proposal to amend §97.111(a)(2) to clarify that amateur stations may, at all times and on all authorized channels, transmit communications necessary to meet essential needs and to facilitate relief actions.

* §97.115(a)(2) to facilitate the transmission of international communications on behalf of third parties in emergency or disaster-relief situations, whether or not a third-party agreement is in place between the US and the countries involved. The revision now permits communication with any non-US station "when transmitting emergency or disaster relief communications" as well as with any non-US station "whose administration has made arrangements with the United States to allow amateur stations to be

used for transmitting international communications on behalf of third parties." The revised rule further provides that no station may transmit third-party traffic other than emergency or disaster relief communications to a station in a country lacking a third-party arrangement. Still excepted from the prohibition is any third party eligible to be the control operator of an amateur station.

* §97.113(a)(4) to prohibit amateur stations exchanging messages with amateur stations in other countries from making transmissions that are encoded for the purpose of obscuring their meaning, except for control signals exchanged between Earth command stations and space stations in the Amateur-Satellite service, something Part 97 already provides for. The old rule referred to the use of "codes and ciphers." The same rule also already prohibits transmitting music, communications intended to facilitate a criminal act, obscene or indecent words or language and false or deceptive messages, signals or identification.

* §97.117 to state that amateur stations may transmit communications incidental to the purposes of the Amateur Service and to remarks of a personal character.

The FCC also revised §97.3 and 97.309 to update the definition of International Morse code and of various digital codes in the amateur rules to reflect changes in the international Radio Regulations.

ISS COMMANDER COMPLETES WAS FROM SPACE, GAINING ON DXCC

International Space Station Commander Bill McArthur, KC5ACR, has achieved his goal of working all US states from NA1SS, and he's continuing his efforts to wrap up DXCC as well. On Saturday, January 21, he worked Alaska for his final state. In addition, he's already worked all continents, including Antarctica, on both VHF and UHF, from NA1SS. McArthur has been one of the most active radio amateurs ever to inhabit the ISS, although the space station crew's activities in advance of a February 3 space walk—or EVA, as NASA calls it—could curtail his casual operating for several days.

"Bill is likely to be very busy preparing for the EVA and has not been as active during the week," Amateur Radio on the International Space Station (ARISS) Ham Radio Project Engineer Kenneth Ransom, N5VHO, told ARRL this week. McArthur has been most active during weekends.

Ransom also notes that McArthur and crewmate Valery Tokarev will be altering their schedule during

the runup to the space walk. "The crew will be waking about 1100 UTC and going to sleep about 0230 UTC until Jan 29, and shift to a wake up time of 1300 UTC and sleep time of 0430 UTC until the day of the EVA," he said.

McArthur added several new DXCC entities to his growing list last weekend, Ransom says, and is better than three-quarters of the way toward working 100. To date, McArthur has more than 1000 QSOs and 77 DXCC entities in the NA1SS logbook, the vast majority of his casual contacts with stations in the Americas and Europe. "He could really use some stations in Africa and Oceania," Ransom noted. Information on which DXCC entities McArthur still needs is available from the ISS Fan Club Web site <<http://www.issfanclub.com/>>.

WAC, WAS and DXCC awards for contacts from NA1SS are honorary, since the award rules make no provision for contacts made from space.

McArthur also is on track to set an ARISS milestone—the most school group contacts by an ISS crew member and the most of any mission. As of January 27, he had handled 20 school group QSOs, while Tokarev had done one from RS0ISS. The current individual record is held by Expedition 10's Leroy Chiao, KE5BRW, who logged 23.

During the scheduled February 3 space walk, McArthur and Tokarev will release "SuitSat-1"—quite possibly the most unusual Earth satellite ever. SuitSat consists of a surplus Russian Orlan space suit converted into a transmit-only satellite with an FM downlink frequency of 145.990 MHz. Using the call sign RS0RS, it will transmit voice messages, telemetry and an SSTV image on a nine-minute cycle as it orbits Earth.

The batteries powering the satellite are expected to last about a week, and SuitSat's free-floating, decaying orbit should cause it to re-enter Earth's atmosphere after some six weeks in space. The SuitSat signal should be strong enough to hear using a VHF transceiver or scanner and a simple antenna.

For more information, see "This is SuitSat-1 RS0RS!" by Frank Bauer, KA3HDO, on the AMSAT Web site <<http://www.amsat.org/amsat-new/articles/BauerSuitsat/index.php>>. The Science@NASA Web site also has published an informative article about SuitSat <http://science.nasa.gov/headlines/y2006/26jan_suitsat.htm>.

FCC INVITES COMMENTS ON LEAGUE'S "REGULATION BY BANDWIDTH" PETITION

Comments are due by Monday, February 6, on the ARRL's Petition for Rule Making that asks the FCC to regulate the amateur bands by necessary bandwidth rather than by mode. The petition, designated as RM-11306, recommends what the ARRL calls "a shift in regulatory philosophy" to encourage and enable development and refinement of digital techniques and advanced technologies.

"This petition seeks for the Amateur Radio Service the flexibility to experiment with new digital transmission methods and types to be developed in the future while permitting present operating modes to continue to be used for as long as there are radio amateurs who wish to use them," the League said in its petition, filed November 14. The ARRL says the changes it suggests also will update the FCC's rules and eliminate the need for cumbersome procedures" to determine whether a new digital mode is legal under Part 97.

The next step in this proceeding would be either a Notice of Proposed Rule Making (NPRM) or a dismissal of the League's petition. An NPRM would kick off a further round of formal comments. For the rules to take effect, the FCC would have to issue a Report and Order putting the changes into place and setting an effective date.

The ARRL is asking the FCC to replace the table at §97.305(c) with a new one that segments bands by necessary bandwidths ranging from 200 Hz to 100 kHz. Unaffected by the ARRL's recommendations, if they're adopted, would be 160 and 60 meters. Other bands below 29 MHz would be segmented into sub-bands allowing maximum emission bandwidths of 200 or 500 Hz or 3.5 kHz, with an exception for AM phone.

* 200 Hz would permit CW "at all speeds that human operators can decode" as well as PSK31.

* 500-Hz bandwidth would accommodate RTTY and data modes and possibly some new image modes.

* 2.8 kHz would remain the bandwidth for 60-meter operation on USB.

* 3.5 kHz would accommodate SSB and digital telephony, image, high-speed data and multimedia.

* 9 kHz is the ARRL's recommendation for double-sideband AM.

* 16 kHz is "a reasonable compromise bandwidth" to continue to permit analog FM voice, data, digital voice and multimedia at 29.0 to 29.7 MHz.

* 100 kHz, now permitted for RTTY and data in bands above 420 MHz, should be allowed starting at 50 MHz, with the exception of 50.0-50.3 MHz and 144.0-144.3 MHz to allow digital multimedia and high-speed meteor scatter work.

The ARRL says the Part 97 changes it's proposing constitute a balance "between the need to encourage wider bandwidth, faster digital communications and the need to reasonably accommodate all users in crowded bands." Conceding that its regulation-by-bandwidth regime would place increased responsibility on the amateur community to establish workable, accepted band plans, the League has expressed confidence that such an effort would be successful.

ARRL CEO David Sumner, K1ZZ, has discussed the subject of regulating by bandwidth in three "It Seems to Us . . ." QST editorials: "Regulation by Bandwidth" in September 2004, "Narrowing the Bandwidth Issues" in April 2005 and "Self Regulation" in October 2005.

"This petition does not favor one mode at the expense of another," the ARRL concluded in urging FCC adoption. "It merely allows expansion of the repertoire of options that amateurs may pursue compatibly."

A copy of the ARRL petition is on the ARRL Web site <<http://www.arrl.org/announce/regulatory/bandwidth/Bandwidth-Minute-64-Petition-FINAL.pdf>>

Comment via the FCC's Electronic Comment Filing System (ECFS) <<http://www.fcc.gov/cgb/ecfs/>>. Under "ECFS Main Links" on the right-hand side of the screen, click on "Submit a Filing" to file comments. To view others' comments, click on "Search for Filed Comments." In either case, type "RM-11306" in the "Proceeding" field using capital letters and including the hyphen (but not the quotation marks).

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.

February

4-5	Vermont QSO Party 10-10 Intl Winter QSO Phone Mexico Intl RTTY Contest
5-6	Delaware QSO Party
11-12	CQ Worldwide RTTY WPX Contest
18-19	ARRL International DX Contest
24-25	Russian PSK WW Contest
25-26	CW Worldwide 160 Meter SSB North American QSO Party

DXpeditions

Call	Location	Until
9V1CW	Singapore	2008
5H3HK	Tanzania	March 2006
T68G	Afghanistan	March 2007
ZD8I	Ascension Is	March 2006

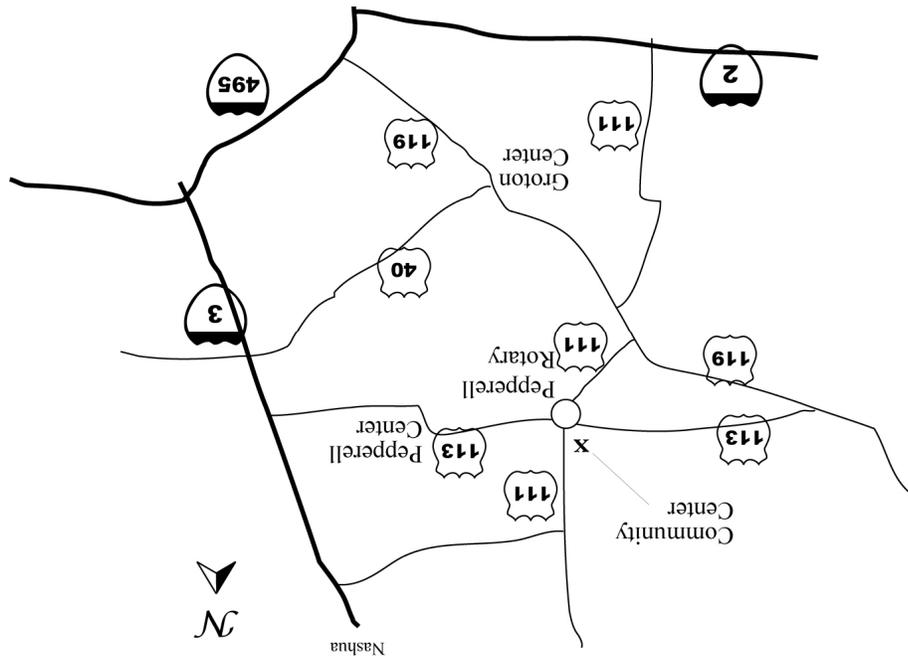


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Meetings are held on the 3rd Thursday of the month
- 7:30 p.m. - Pepperell Community Ctr. Talk-in
146.490 simplex
442.900 + 100Hz Repeater
147.345 + 100 Hz Repeater
53.890 – 100Hz Repeater
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