



# SIGNAL



de NINC

October 2006 Volume 15 Number 10

## This Month's Meeting

This month's regular meeting is Thursday October 19th. The meeting program is a QSL card sort for the W1 QSL Bureau. This is the ninth time we have sorted cards for the W1 QSL Bureau starting back in 1998.

Pizza and drinks will be served after the sort is completed.

See separate article to explain what we will be doing.

Road Cleanup will be Sunday October 22<sup>nd</sup>.

## Last Month's Meeting

At last month meeting the members approved a \$200 donation to the Pepperell Conservation Commission in consideration of our use of the orchard for Field Day for many years.



Courtesy KD1LE

Stan delivered the donation to Ellen Fisher at the Pepperell Conservation Commission.

Also approved was the annual payment of club liability insurance.

Ralph presented the NVARC Annual Financial Statement which was published in last month's newsletter.



Courtesy KD1SM

The meeting program was by Rod WA1TAC. Rod participated with a group who put the USS Constitution on the air for "Museum Ships on the Air" weekend several years ago. *This seems to be a July event—ed.*

Bob W1XP got enough interest for the Connector College so it was scheduled for the next Thursday at the Community Center.

John relayed a message from John GM3TCW who visited us this summer.

Field Day pins were passed out to participants present at the meeting.

Below L-R Ralph KD1SM, Skip K1NKR, Joel W1JMM, Dave N1MNX, Dale AB1GA, Bob W1XP,

Stephen WA4LDL, Leo K1LK, Wolf WA1VOU, John KK1X and Stan KD1LE.



Attendees at the September meeting: Dale AB1GA, Walter K1CMF, Ken K1JKR, Leo K1LK, Skip K1NKR, Gary K1YTS, Wolf KA1VOU, Phil KB1JKL, Nancy KB1KEF, Peter KB1LZH, Stan KD1LE, Ralph KD1SM, John KK1X, Don N1HVA, Dave N1MNX, Les N1SV, Joel W1JMM, Peter W1LLB, Dick KB1MBR, James W1TRC, Bob W1XP, Rod WA1TAC, Stephen WA4LDL, Russ WR1Y.

### Winter Meetings

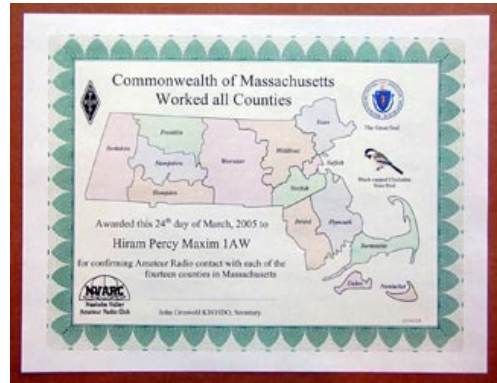
During the winter months we try to use local content for the meeting programs. That way we don't ask someone to drive a long way in potentially bad weather. So the quality of these meetings is dependent on all of us.

December is Homebrew Night so polish up all those great projects you have been working on during the year to show off. If it's a big project that you have digital pictures of we can have a computer and projector available to display them.

January is Members Short Subjects night. If you have a short subject presentation of five to fifteen minutes let us know so we can schedule you into the program. Here again

### Worked all Massachusetts Counties Certificate

A second WAMC certificate has been awarded. It went to Helio Carlotta in Brazil.



The Nashoba Valley Amateur Radio Club is the sponsor of the Worked All Massachusetts Counties Award. See our Web site at [www.n1nc.org](http://www.n1nc.org) for info.

### Board Meeting

Board meeting discussions.

Stan reported the check for the Pepperell Conservation Commission was delivered. See the picture under "Last Months Meeting".

Stan reported QSL cards for the card sort were on hand. He also showed a card sorting box he built to try out at the card sort.

Les received book list prices from Radioware who were generous enough to provide them at a discount. We selected books to purchase for the raffle.

Ralph gave the Treasurers report.

We need to print Yearbooks for any new members.

Sorting equipment

The board voted to renew John Kelly GM3TCW Honorary membership.

In attendance were Stan KD1LE, Ralph KD1SM, John KK1X, Les N1SV, Larry KB1ESR, and Joel W1JMM.

## Connector College

Thursday September 28<sup>th</sup> Bob W1XP supervised a Coax Connector College. This was a follow up to the connector presentation Bob did at the May meeting. People brought various cable and connectors they wanted to work with such as PL-259, Type N, and adapters for various cable diameters. Bob demonstrated several connector installations. Then everyone worked on their own particular cables with help as they needed it.



Courtesy KD1SM

Attending the lab for extra credit were Stan KD1LE, Ralph KD1SM, Richard KB1MBR, Leo K1LK, John KK1X, Les N1SV, Walter K1CMF and of course Bob W1XP.

## Treasurers Report

Income for September was \$240 from member dues, \$1.33 from bank interest, and \$10.08 from WAMC certificate request. We also received contributions of \$30 from Callie K1ZAK as a thank-you for assistance provided by KK1X and KD1SM, \$5 from K1JKR, and \$0.01 from road cleanup findings. Expenses were \$15.60 for newsletter postage, \$7.68 for other postage, \$250 for the liability insurance premium, and net \$49.25 for WAMC certificates, leaving a net expense of \$46.19 for the month.

We received a donation of \$250 to the Community Fund from the Squannacook River Runners in recognition of our help with the Groton Road Race and

we made a contribution of \$200 to the Pepperell Conservation Fund from the Community Fund.

Current balances:

General fund	\$4085.37
Community fund	\$2136.83

As of 12 October we have 58 members who are current with their dues and 4 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 newsletter mailing label.

If your ARRL membership renewal is coming up, leave your renewal with me at a Club meeting and the Club will pay the postage. As a Special Service Club, the ARRL lets us retain a small portion of the dues that we forward to them.

Ralph KD1SM

## Swap Shop

Roll around staging suitable for hard surfaces/indoors. The platform is 2 X 8 feet and can be set at approximately 16 inch increments up to 6 feet.



Courtesy N1SV

This staging is available for your weekend projects. Contact Stan KD1LE

I have two 20 GB and one 30 GB used laptop disk drives up for grabs. Contact Stan KD1LE

## Groton School Project

I have been working with a Groton school to ensure communications between playground monitoring personnel and several points in the school. Part of the project was to get headsets or earphones that would work with the radios they were using. I want to thank Larry KB1ESR, Den KD2S, Ralph KD1SM and Bob AB1CV for donating headphones and ear-phones that I could modify to work with the radios.

Stan KD1LE

## PSLIST

Date	Location	Event	Contact	Tel/Email
Oct 20	Cambridge MA	Head of the Charles Regatta	Jeff K1EMS	978-536-2842 RWJeffA@comcast.net
Oct 21	Cambridge MA	Head of the Charles Regatta	Jeff K1EMS	978-536-2842 RWJeffA@comcast.net
Oct 22	Cambridge MA	Head of the Charles Regatta	Jeff K1EMS	978-536-2842 RWJeffA@comcast.net
Nov 11	Lowell MA	Lowell Youth Soccer Tourn	Ron KB1KRG	781-752-5885 kb1kr@arrl.net
Nov 12	Lowell MA	Lowell Youth Soccer Tourn.	Ron KB1KRG	781-752-5885 kb1kr@arrl.net

## Card Sort Info

Incoming QSL cards from other countries are shipped to the organization responsible for each call area. We are in the 1 call area hence the N1s, W1s, K1s, etc. The Yankee Clipper Contest Club manages the 1 area incoming QSL Bureau.

When cards are received by the incoming bureau they are first sorted (called the presort) to the first letter after the number 1. Every card is going to be sorted to the letter after the number one in the US callsign. This is the sort we are going to do. We will sort all the cards into one of 26 A-Z piles.

The cards are then forwarded to a person responsible for a particular letter called the "letter sorters". They sort the cards down to individual amateur callsigns.

The cards we are sorting are typically of four kinds.

Most will be foreign QSL cards addressed to a US amateur whose callsign will be written or printed on the card.

Some will be US QSL cards being returned for some reason. It may be the foreign station isn't a member of the incoming bureau there and so the cards will not be delivered. It could be an incorrect callsign that cannot be delivered or it could be a silent key. In all of these cases we are sorting the cards on the first letter after the number 1 in the original senders US callsign which is probably printed on the front of the card.

A third category are cards for a foreign or US station that are being handled by a QSL Manager. The card will be addressed to a foreign or US station and say "callsign via callsign". The second callsign is where the card is going and should be a 1 area callsign.

Some cards will have incorrectly been sent to the W1 QSL Bureau such as 2s, 3s, or even foreign callsigns. These cards are collected, bundled, marked and just go back in one of the boxes. The Bureaus have some mechanism to exchange them.

Some cards will be difficult to read. Ask someone else to take a look at the card. Some countries have different ways of forming particular characters.

## 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, Les N1SV, Richard KB1MBR, Ken K1JKR, Erik W1ZBT, Den KD2S and Peter KB1LZH.

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.

## Adopt-A-Highway

The next road cleanup is Sunday October 22nd.

Thanks to the following members for their participation in the September cleanup Ralph KD1SM, Bob W1XP, Stan KD1LE, John KK1X, Earl WR1Y and Larry KB1ESR. We picked up 15 bags of trash.

We meet at the Nashua River common on 119 at 9:00 AM.

## Flea Markets

October  
15 MIT, Cambridge MA

Nov  
4 IRS Flea Market, Londonderry NH  
11 FARA FEST E. Falmouth MA

## 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](http://www.425dxn.org).

### Contests 2006

October  
21-22 W/VE Island QSO Party  
21-22 Scouting Jamboree On The Air

Suggested Frequencies	
80M	3.740-3.940
40M	7.270
20M	14.290
17M	18.140
15M	21.360
12M	24.960
10M	28.390

Nov  
4-6 ARRL November Sweepstakes CW  
4-6 Kentucky QSO Party  
11-12 ARRL International EME  
11-13 Worked all Europe DX Contest RTTY  
18-20 ARRL November Sweepstakes Phone  
25-26 CQ WW DX Contest CW

Dec  
1-3 ARRL 160 Meter Contest  
9-10 ARRL 10 Meter Contest

2007  
January  
1 Straight Key Night  
6-7 ARRL RTTY Round-Up  
20-21 ARRL January VHF Sweepstakes  
CQWW 160 CW last full weekend

February  
CQWW RTTY WPX 2<sup>nd</sup> full weekend  
17-18 ARRL International DX Contest CW

CQWW 160 SSB last full weekend

March  
3-4 ARRL International DX Contest Phone

May  
CQWW WPX CW last full weekend

June  
9-11 ARRL June VHF QSO Party  
23-24 ARRL Field Day

July  
CQWW VHF 3<sup>rd</sup> full weekend

September  
CQWW RTTY DX 4<sup>th</sup> full weekend

### DXpeditions

Call	Location	Until
TF/IW5DCE	Iceland	December
YI9KT	Iraq	January 07
OX3PG	Greenland	June 07
TU2/F5LDY	Ivory Coast	31 August 07
T68G	Afghanistan	March 2007
9V1CW	Singapore	2008

See [www.425dxn.org](http://www.425dxn.org) for more listings

## Advertisements



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

## ARRL Letter

### 160-METER EXPERIMENT WILL EXPLORE MARCONI'S 1901 TRANSATLANTIC SUCCESS

A 160-meter beacon will take to the air this fall and winter from Cornwall, England, to explore how Guglielmo Marconi was able to span the Atlantic by wireless for the first time on December 12, 1901. Radio history says that's when the radio pioneer at a receiving station in Newfoundland successfully copied the Morse code letter "s" sent repeatedly by his team in the Cornwall town of Poldhu. The latter-day venture is a cooperative effort of the Poldhu Amateur Radio Club (PARK) in Cornwall and the Marconi Radio Club of Newfoundland (MCRN). The Poldhu club's Keith Matthew, G0WYS, said the 2001 centenary of Marconi's achievement reopened discussion into the mechanism by which the 1901 spark transmitter signal propagated.

"The winter of 1901 coincided with a sunspot minimum, and it was realized that this coming December 2006 should show similar conditions to those of December 1901," he said. Just how Marconi was able to receive the transatlantic transmission has long been a topic of discussion and even controversy, especially given the frequency Marconi is likely to have used, thought to be between 800 and 900 kHz, and the time of day, afternoon in Newfoundland.

"The beacon will help understand the possibility of low sunspot number transatlantic medium wave propagation 24 hours a day, but especially 1400 through 1800 UTC," Matthew said. The 160-meter amateur band is being used, he explained, because Marconi's original frequency today is a highly populated piece of the radio spectrum.

"It was realized that a clear channel would be necessary on the nearest amateur band, and a temporary license to operate a beacon on 160 meters has now been obtained," Matthew announced. Starting on or about November 1 and continuing through next February, the GB3SSS beacon will transmit on 1960 kHz.

The 1960 kHz beacon will use a two-minute transmit sequence starting at the top of the hour. It will consist of a CW identification followed by a series of carrier bursts, each reducing in power by 6 dB. An identification in PSK31 will follow. The transmit sequence will repeat at 15-minute intervals.

On the listening end in Newfoundland will be well-known low-frequency experimenter Joe Craig, VO1NA, of the MRCN, who lives near St John's.

"This is a very exciting project," Craig said. "I am very grateful for the support from my fellow members in the club and our sister club, the Poldhu Amateur Radio Club." Craig offered his own observations on Marconi's 1901 feat in a 2001 article "Marconi's First Transatlantic Wireless Experiment," for The Canadian Amateur, the journal of Radio Amateurs of Canada (RAC) <<http://www.ucs.mun.ca/~jcraig/marconi.html>>. Also monitoring in North America will be the Antique Wireless Association's W2AN club station in upstate New York.

ARRL member and radio history buff Bart Lee, KV6LEE, proposed the 160-meter experiment to test the feasibility of Marconi's 1901 claimed achievement. "Continuing cooperation between Canadian and British Amateur Radio operators can thus play a part in verification of one of the most interesting events in the history of our technology," Lee said in his article "A Plea for Timely Experiments" on the California Historical Radio Web site <<http://www.californiahistoricalradio.com/photos53.html>>. Lee and Matthew recently visited with Craig and other MRCN members in Newfoundland.

E-mail beacon reception reports  
<[gb3sss@yahoo.co.uk](mailto:gb3sss@yahoo.co.uk)>.

### ARISS TEAM "ALWAYS ON A ROLL," ARRL LIAISON SAYS

Recent meetings with NASA officials have laid the foundation for the future of the Amateur Radio on the International Space Station (ARISS) program <<http://www.rac.ca/ariss>> and, at the same time, garnered accolades for Amateur Radio. Sponsorship of the ARISS program is moving from NASA Headquarters to Johnson Spaceflight Center (JSC) in Houston, and ARISS International Chair Frank Bauer, KA3HDO, and ARISS International Secretary-Treasurer Rosalie White, K1STO, recently held planning sessions with various JSC offices. White described the sessions as "stepping stones" to the realization of future ARISS projects and programs.

"The ARISS Team continues to be on a roll with new and exciting aspects to plan and develop," White said. "It isn't just daydreaming. It is dreams that turn into reality for hundreds of thousands of youths, thousands hams and even most astronauts!" Accompanying Bauer and White on the visits were Bauer's deputy, Mark Steiner, K3MS, and NASA ISS Ham Radio Project Engineer Kenneth Ransom, N5VHO.

The ARISS team's first stop was the ISS Program Office to review a new, nearly completed NASA-

ARISS charter. The ISS Program Office's Carlos Fontanot confirmed that the ARISS team will be charged with overseeing all Amateur Radio-in-space activities, no matter what ham radio group initiates them, White said.

At the JSC Education Office, the ARISS delegation discussed the transition of ARISS sponsorship from NASA Headquarters to JSC. They met with Education Leader Cynthia McArthur -- wife of astronaut and ISS Expedition 12 Commander Bill McArthur, KC5ACR. Bauer and White asked McArthur to thank her husband for thrilling thousands of hams by getting on the air so often during his ISS mission. McArthur said she was impressed by the number of Expedition 12 Google hits that mentioned Amateur Radio.

The ARISS delegation also met with ISS Expedition 9 astronaut Mike Fincke, KE5AIT. "He made it very plain that he truly enjoyed getting on the air for rag-chew QSOs and being interviewed by school children about the ISS," said White. "He expressed the hope that all astronauts will earn their ham licenses and be able to realize the same pleasures he got from hamming."

Fincke told the ARISS team that he found ARISS to be both exciting and, as an educational outreach program, a great global teaching tool. He recounted that when he missed his family and friends while on orbit, he'd grab the NA1SS mike and call CQ, finding hams all over the world just waiting to make a contact with him. "ARISS lets the ISS crew make contacts with unknown citizens. A crew member needs that," he told Bauer and White.

Huddling later with Al Holt of the JSC Space Operations Sponsored Experiments Office, Bauer and White said they'd like to an ARISS role in the "Moon, Mars and Beyond" initiative. They cited Amateur Radio's potential as a valuable tool to people living on the moon for several months at a time.

"Moon-base hamming could be similar to hamming in Antarctica," White said. "ARISS is the foundation for worlds of opportunity. The ARISS Team is cautiously optimistic that it will be supporting Moon, Mars & Beyond."

The ARISS Team also consulted with Steve VanderArk, KC5WKH. He heads the Wyle Labs team of contractors that schedules the astronauts' workdays. Once the exploration initiative ramps up, he said, the ISS Program Office will schedule many construction-related flights. He pointed out that while the busy crews may not have as much time for Amateur Radio, more of them will be available to do ARISS

QSOs. "ARISS makes a huge impact on the crew and on education," Vanderark said.

### **ARRL 500 kHz EXPERIMENT IN ORGANIZATIONAL PHASE**

The project manager for the ARRL 500-kHz experiment, Fritz Raab, W1FR, says The 500 KC Experimental Group for Amateur Radio is still in the organizational stages but has already recorded its first two-way contact. The FCC's Office of Engineering and Technology on September 13 granted Part 5 experimental license WD2XSH to the ARRL on behalf of a group of radio amateurs interested in investigating the LF spectrum. The two-year authorization permits experimentation and research between 505 and 510 kHz (600 meters) using narrowband modes at power levels of up to 20 W effective radiated power (ERP).

"It will probably be a free for all through October as guys get their stations on the air," Raab told ARRL Headquarters. "The Midwest stations will be limited to 505 to 508 kHz for the time being, and the rest can use 505 to 510 kHz." He said a couple of the WD2XSH participants got on the air the day after the license was issued, and several others activated the first week, generating a number of reception reports.

"Many are for distances of about 300 miles, of course, but some are much longer," Raab told ARRL Headquarters. He reports that W0RPK in Iowa copied the WD2XSH/20 station in Oregon early on September 26 - a distance of 1500 miles.

The first QSO took place September 21 between the stations in Tennessee and North Carolina - a distance of some 300 miles.

Raab eventually would like to see at least a secondary 600-meter Amateur Radio allocation from 495 to 510 kHz. He envisions eventual use of the spectrum to provide Amateur Radio emergency communication via groundwave.

Announcement of the license grant earlier this month brought a few requests from radio amateurs interested in joining the experimental group. Raab says there are no plans to expand the group's membership, however. He does invite reception reports of transmissions made by group members <<http://w5jgv.com/500kcreportform.htm>>.

For the time being, the WD2XSH group is only using CW. The ARRL Part 5 application had requested permission to use both CW and PSK31, but the license grant omitted the latter mode. Raab says he's

working to secure permission to add PSK31 to the grant.

During October, the 21-station experimental group will develop a band plan that assigns frequencies for QRSS -- very slow speed CW -- as well as for CW beacons and for two-way communication, Raab said. WD2XSH participant Conrad Murray, WS4S (WD2XSH/11) reports he's transmitting a QRSS beacon on an irregular basis on 505.505 kHz from his Tennessee QTH.

News of the WD2XSH license grant opened another line of communication for Raab. "The announcement brought me a bunch of e-mails, and contact with someone I knew from college and hadn't seen since the 1970s," he said.

More information is on the 500 kc Experimental Group for Amateur Radio Web site <<http://www.500kc.com/>>.

### **CIVILIAN SPACE TRAVELER, ASTRONAUTS PULL OFF ARISS HAM RADIO TRIPLE HEADER**

Students at three schools participated in a bit of ham radio history Friday, September 22, when they spoke with the International Space Station's first female civilian space visitor and two astronauts. The Amateur Radio on the International Space Station (ARISS) program sponsored the separate, direct VHF contacts with US civilian space traveler Anousheh Ansari, European Space Agency (ESA) astronaut Thomas Reiter, DF4TR, and US astronaut Jeff Williams, KD5TVQ. Ansari told students gathered at George Washington University, her alma mater, that everything looks "so beautiful" from the ISS.

"It's great up here," Ansari told the students, "The weightlessness feels fantastic. It's like floating like a feather."

Youngsters from Washington, DC-area elementary and middle and high schools joined GWU students in interviewing Ansari, who spoke via NA1SS with Williams as the control operator. Ansari, who returned to Earth September 28 with Williams and ISS Expedition 13 Commander Pavel Vinogradov, RV3BS, said she misses her family on Earth, but "otherwise, I think I'm just going to stay up here," she quipped.

Goddard Amateur Radio Club (GARC) members set up and operated the necessary station equipment for the contact between NA1SS and GWU Earth station KE4GDU.

In addition to the GWU event, Ansari, using the Russian RS0ISS call sign, made random Amateur Radio contacts during her ISS stay with a number of hams around the world. At one point she was seeking stations in her native Iran.

Space Adventures Ltd arranged with the Russian Space Agency for Ansari to join the Expedition 14 team of Commander Michael Lopez-Alegria, KE5GTK, and cosmonaut Mikhail Tyurin, RZ3FT, on the Soyuz "taxi flight" to the ISS last week.

Earlier on that same orbit, during a contact arranged by the ESA in cooperation with ARISS, Reiter chatted via HB4FR with students at the Gymnase Inter-cantonal de la Broye, in Payerne, Switzerland, using the German DP0ISS call sign. The contact was conducted in English.

Reiter answered eight questions from the 15 to 17 year olds - 22 in all -- as 50 onlookers gathered around the radio and another 350 witnessed the contact via an Amateur TV link. The contact attracted media coverage from several TV outlets and newspapers.

The school set up for the contact in the museum Clin d'Ailes at the Payerne Swiss Air Force Base, the home of HB4FR. First to greet Thomas on the air was his friend and Museum Foundation President Claude Nicollier, HB9CN, the first Swiss astronaut. The event was part of "Swiss Space Days" activities organized by the Swiss Astronautics Association.

During the five-minute radio contact, eight students got to ask questions. Responding to one of them, Reiter said the ISS crew has been trying to spot the Great Wall of China from space but has not been successful. He said he'd make another attempt and see if he could get a photo. Reiter this week officially became part of the ISS Expedition 14 crew.

On the following ISS orbit, Williams answered questions put to him by students at Crete-Monee Middle School in Crete, Illinois. The contact was Williams's 15th and final school QSO of his ISS duty tour before he headed home September 28. Williams told the youngsters that while he was looking forward to returning to Earth and reuniting with his family, his time in space has been both exhilarating and very rewarding "for all the obvious reasons."

As Williams put it: "Getting here is very exciting, being here is very exciting with all the unique things you can do in weightlessness and the unique things you can see from here, and, of course, going home's going to be pretty exciting too."

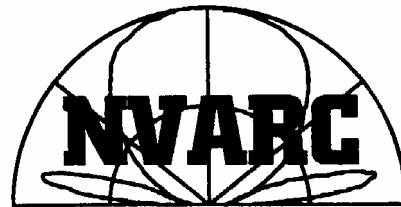


Williams said eating in space can be difficult "if you don't manage your food" in the microgravity environment where meals won't simply sit on a plate. "It's a lot of fun to play with your food," he added.

As the approximately nine-minute contact between NA1SS and AJ9N drew to a close, Williams urged the students to set their goals high and "go for them!" An audience of 800 - mostly other students - was on hand, and representatives from two TV stations and a local newspaper showed up to report the event. Members of the Lake County Amateur Radio Club (LARC) and the Kankakee Amateur Radio Society (KARS) set up the station at the school for the ARISS contact, and audio was streamed onto the KARS W9AZ repeater.

The Expedition 13 of Vinogradov and Williams returned to Earth September 29 (UTC) in the steppes of Kazakhstan. The Soyuz TMA-8 spacecraft landed some 50 miles northeast of Arkalyk, and Russian recovery forces and NASA officials arrived at the site shortly after touchdown.

ARISS <<http://www.rac.ca/ariss>> is an international educational outreach with US participation by ARRL, AMSAT and NASA.

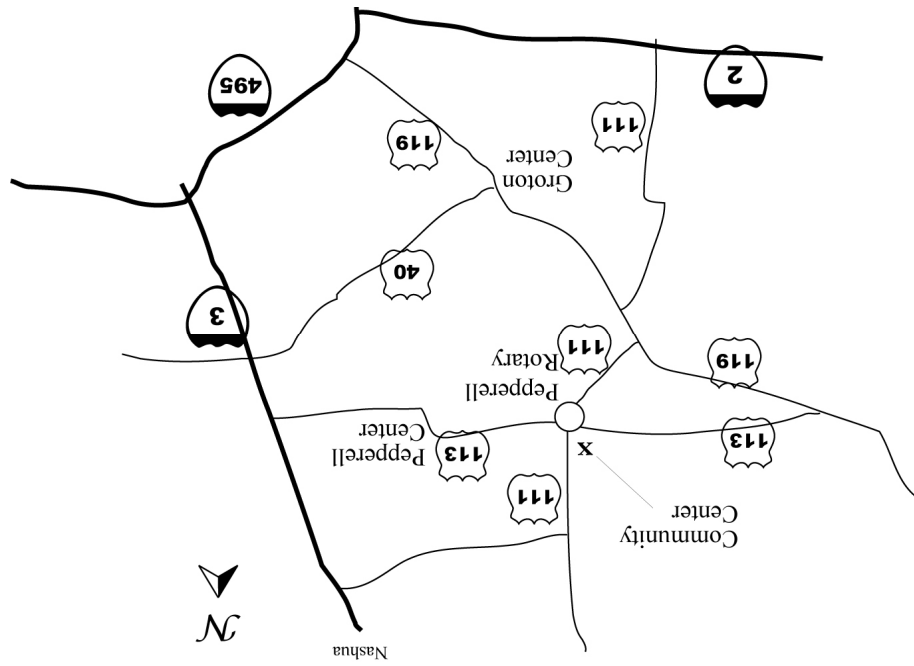


**Nashoba Valley  
Amateur Radio Club**

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<http://www.n1nc.org/>

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Les Peters: N1SV 2005-2008  
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Meetings are held on the 3rd Thursday of the month  
7:30 p.m. - Pepperell Community Ctr.  
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