

Nashoba Valley
Amateur Radio Club

SIGNAL

April 1993 Volume 2 Number 4

This month

Who Knows?

The Speaker

Not me. I've heard Bruce beating the bushes for a speaker -- he even cornered the Section Manager on the .64 repeater. Come to the meeting and see who he got!!

The meeting will be on **April 15th** -- No Joke! Hey, by 7:30 if you haven't gotten your taxes in, you won't get in any more trouble if you take a couple of hours to come join us.

THE ELECTIONS!

If you drag things out long enough, eventually they settle themselves. No matter which NVARC constitution you endorse, April is the time of the elections! We'll also be looking at the latest in a long line of proposed NVARC constitutions.

The Money!

Ben, KB1FJ, gleefully reminded me last night that if you joined at the first meeting held at the VFW (as I did) your membership is now up and you're into the club for another \$15. Most members are up for renewal in the next three months. Bring your checkbook.

Bag a QSO with the Space Shuttle!

Information condensed from usenet

After the usual delays, STS-56 lifted off on an 8 day mission which includes SAREX. The high-inclination orbit means that we in the Greater Pepperell Area have a chance to work (or at least hear) the Shuttle. Keep in mind that a **good** pass over Groton/Pepperell lasts about 8 minutes. Work fast.

The following frequencies are used for two-way **FM VOICE** communications with the Shuttle astronauts:

Downlink: 145.55 MHz

Uplinks: 144.91, 144.93, 144.95, 144.97 and 144.99 MHz

Call: KB5AWP

Note: The crew will not favor any specific uplink frequency, so your ability to communicate with SAREX will be the "luck of the draw." They have several scheds with schools, please don't break in if they are working them.

When not operating voice mode, the packet station should be running. The following frequencies are used for **PACKET** communications with the Shuttle:

Downlink: 145.55 MHz

Uplink: 144.49 MHz

Call: W5RRR-1

This is plain. old 2-meter, 1200 baud packet. However, you have to be able to work the odd split.

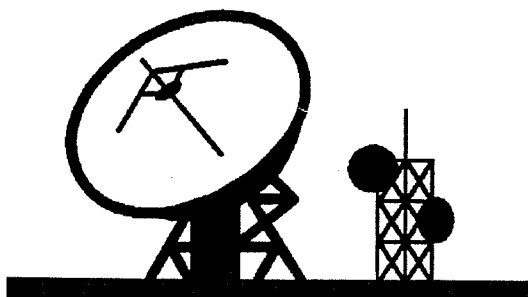
For all operations, Earth stations should listen to the **downlink** frequency and transmit **on the uplink** only when the Shuttle is in range and the astronauts are on the air. Listen for any instructions from the astronauts as to specific uplink frequencies in use during the current pass. In addition, **listen to the uplink frequencies before transmitting** to avoid interference to other users. (Past SAREX missions have had a lot of needless QRM.)

DO NOT transmit on the SAREX downlink frequency!!

OSL via

STS-56 QSL
c/o Vienna Wireless Society
P.O. Box 418
Vienna, VA 22183

Report should include callsign, whether worked/heard, date, UTC time, mode, frequency (and QSO number for packet connects.) Enclose SASE for reply.



If you have a tracking program, these are the Keplerian elements from orbit 7:

NASA format:

STS-56
1 22621U 93098.60251678 .00059346 00000-0 16200-3 0 54
2 22621 57.0034 177.2023 0006554 270.2978 89.7348 15.92542168 70

AMSAT Format:

Satellite: STS-56
Catalog number: 22621
Epoch time: 93098.60251678
Element set: GSFC-005
Inclination: 57.0034 deg
RA of node: 177.2023 deg
Eccentricity: .0006554
Arg of perigee: 270.2978 deg
Mean anomaly: 89.7348 deg
Mean motion: 15.92542168 rev/day
Decay rate: 5.93460e-04 rev/day*2
Epoch rev: 7

Watch the bulletin boards for updated elements. If you don't have a tracking program but do have packet, check **PEPMBX** for a list of pass times for the Greater Pepperell Area.

Space Shuttle audio on HF

Don't want to work them, but you're interested in what's going on? The **Goddard Amateur Radio Club**, **WA3NAN** and **Johnson Spaceflight Center** radio club, **W5RRR**, will re-broadcast the shuttle voice audio as it has done on past **SAREX** missions. Included in these broadcasts will be the latest Keplerian

element set. The following is the list of **HF** frequencies that radio amateurs can tune in on to find out the latest status of **STS-56**.

WA3NAN Planned HF Operating Frequencies:

3.860 MHz	7.185 MHz
14.295 MHz	21.395 MHz
28.650 MHz	

W5RRR Planned HF Operating Frequencies:

7.225 MHz	28.650 MHz
14.280 MHz	

Young Operators International

From ARRL Field Forum, April 1993

The idea of organizing the Young Operators International Club came to me after about five years of activity on the amateur bands. There seemed to be a special camaraderie among young amateurs, but no international organization for them.

To help young hams and other young people interested in Amateur Radio communicate among themselves, the new club will sponsor its own newsletter or perhaps even a small magazine. If you're under 30 and want more information, please send a small story about yourself along with your photo to Mike Pagel, **WB9QFW**, University of Wisconsin, Stevens Point, WI 54481 -- Andy Trubachov, **UA3PIP**

Beginning Traffic Handler's Award Offered

From ARRL Field Forum, April 1993

To spur interest in traffic handling and the National Traffic System, the Field Service Department at ARRL Headquarters has created a new award entitled the NTS "Message Origination Award." To qualify for the award, a traffic handler must show proof of originating at least four properly-formatted NTS radiograms in a one-month time frame. The documentation is forwarded by the applicant to his Section Manager or Section Traffic Manager who issue the awards.

There are several benefits to NTS. First it spurs interest in traffic handling. It helps an interested would-be traffic handler to become familiar with proper radiogram format, what a true message origination is, and who his Section Manager and Section Traffic Manager are. Finally, it encourages a newcomer to find a new or PBBS to send his traffic, thus introducing him to the local/section NTS organization and proper net procedures. Watch for an announcement of the new award to the general membership in April QST.

Public Service Log



Public service events are the most visible activity that hams undertake, and those who take time out of their schedules deserve our deepest thanks, not just for the service they provide to the public but for the service they provide to the amateur radio community.

Groton Road Race

Thanks to those who helped in the Groton road race. Though the day was cold and dreary, the turn-out was good for the public and excellent for the hams, as evidenced below:

N1KSI	James Ford
N1LLG	Daniel Daigneault
KA1TTZ	George Gogas
KA1HQT	James Johns
KD1JY	Duane Long
KA1RV	Erik Piip
N1OJV	Gwenneth Wallens
<nocall>	Ben Wallens
NZ1B	Ian Norish
N1LDL	Chuck Searle
N1DVC	Robert Mignard
KA1GEP	Mark Anderson
N1OJU	Ralph Swick
<nocall>	Joseph Swick
KB1APM	Lynda Pozerski
KD1LE	Stan Pozerski
N1NIX	Peter Quintin
KA8SCP	Terry Stader

WQ1E	Donald Stevens
N1OJW	Roger Bisbo
WA1TAC	Rodney Hersh
N1DDE	Steve Bourgeois

The NVARC booth was also on hand, with several people on booth duty:

KB1FJ	Ben Akins
K1BG	Bruce Blain
KA1JVU	Karen Reif
W1XP	Bob Reif
WR1Y	Earl Russell
KC1TD	Patrick Taber

(The booth crew is listed from memory -- I hope I didn't leave anyone out.)

Great Blue Hill Volcano

Special thanks to all the members who turned out to support emergency communications during the Great Blue Hill volcano. No lives were lost, and much property damage was averted by the more than 500 hams from 15 communities (including Groton and Pepperell) who responded. Governor Weld will be visiting the various ham clubs over the next few months to express his personal gratitude.

Great Blue Hill (from which WGBH takes its name) the only known active volcano in the New England Area, last erupted some five years ago. At that time one Boston-area newsman was lost and commuter traffic was disrupted.

Upcoming Events

Saturday 24 July

ARRL New England Division Convention.

At Center of New Hampshire Convention Center in Manchester, NH. Flea market, license exams, DXCC and WAS field QSL checking, forums for Contesting, DX, Packet and ARRL. 8:00 am to 4:30 PM. Admission \$4.00 in advance \$5.00 at the door.

HOW COPY?

Spring. Every year I breath a sigh of relief. Each Winter I develop a cave-man like fixation that this is the year that the sun won't come back. But this year, and this makes 40 in a row, it has. Now, when I'm not pumping out the cellar or tracking mud into the house, my mind wanders to My Favorite Things.

Like the Annual Straightening of the Satellite Antennas. Or the start of tower climbing season. Not to mention the VHF/UHF contests. (I can't claim ever to have gotten a good score, but I sure do love to operate them.)

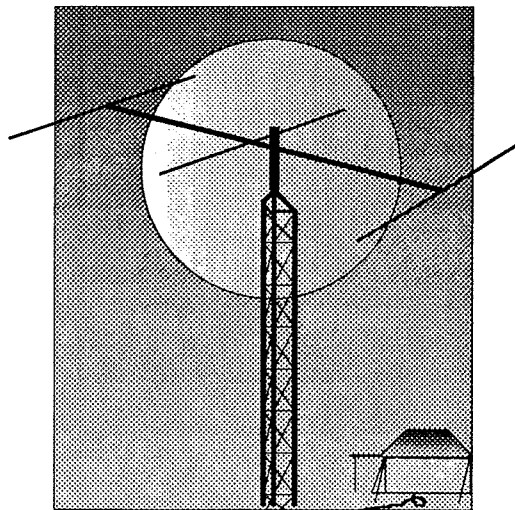
But the jewel in the crown for most hams is **Field Day**. The last full weekend in June (26th and 27th this year,) Field Day is the bug-slappingest, cold-in-the-rainiest, bad food, no-sleep, stink-of-gasoline adventure in the year.

This year in particular should be good because this year the rules give 100 bonus points for 10 or more VHF/UHF contacts. And like the free packet station or the free satellite station, the VHF/UHF transmitters don't count for the group's competition category. (I've developed this fantasy of doing a Field Day with no HF -- only packet, satellite and now V/UHF, then entering in category 0A.)

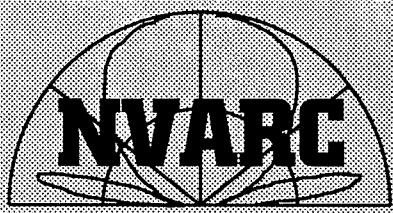
The idea is to entice new Technicians to come out and join us. It also will help make it clear that there's more to VHF and UHF than FM repeaters. Try a little weak signal work doing SSB or CW on the high bands, and you'll have that same Monday morning "I can hear every conversation in the office" radio hangover that the HF operators have.

And June is a good propagation month for VHF and UHF. The June V/UHF QSO party is generally the weekend before Field Day. The date is picked because there's often a good array of propagation modes: a little E-skip or tropo during the day, a little aurora at night, maybe the occasional meteor.

Our traditional riverside location may not be the best spot for those sudden 2 meter propagation breaks into Florida, but if the other Field Day groups follow suite, we should have plenty of people to talk to.



--KC1TD



Nashoba Valley Amateur Radio Club

Officers:
 President: Earl Russel, WR1Y
 Vice-President: Bruce Blain, K1BG
 Treasurer: Ben Atkins, KB1FJ
 Secretary: Duane Long, KD1JY

The Nashoba Valley Amateur Radio Club meets on the third Thursday of each month at the Pepperell VFW hall, 7:30pm. Annual membership \$15. Special rates for families and under 16.

Articles for NVARC Signal are always welcome. Preferred format is plain text on 3.5-inch IBM floppy, though the editor is happy to accept anything from phone calls to sketches on cocktail napkins. Send to:

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 Pepperell, MA 01463-1127
 (508)433-2521

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 taber@cimtia.dec.com (usenet)