



Editorial

Tom AB1GF and Paul KD1YH spent two days last weekend trying to solve the repeater issues at Burbank Campus. We thank them. Having participated in the work "on the hill" somewhat vicariously via Echolink, I must add my appreciation to Tom and Paul for their dedication and long hours wrestling with the clubs repeaters and linking projects. More work remains to be done and next month we will have more photos of some of the accomplishments, Ed.

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Contributors To This Issue:

AB1GF, KD1SM, KD1YH, K1YTS, NZ1D, W1HFN

Public Service

dE Ralph, KD1SM, Gary K1YTS

The Amateur Radio public service season begins with a surge in April. There are three significant events in which MARA members volunteer our time, skills, and equipment. First on the calendar is the Boston Marathon, then the Squannacook River Canoe and Kayak race the next Saturday and the following weekend on Sunday April 30th is the Groton Road Race.

Boston Marathon – Monday, April 17

Several MARA members are part of the larger Amateur radio crew for the Boston Marathon. If you are a part of this event, you will already have been signed up.

Squannacook Canoe Race – Saturday, April 22

de Gary K1YTS

Gary K1YTS coordinates the hams for the Squannacook River Canoe and Kayak race, which will be held on April 22nd. We meet at the West Townsend VFW on Saturday morning (9 am) to get our assignments along the river. Positions secure one by one as the last canoe passes. "Pizza party" at the Pizza Parlor in the Harbor after the race.

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All events can be done with a 2-meter HT. Some assignments can make use of a mobile radio in your vehicle. Let Gary or Ralph know of your equipment capabilities and they will match you to the assignment.

Groton Road Race – Sunday, April 30

The Groton Road Race continues to be a major event for Amateur Radio in North Central Massachusetts. The Squannacook River Runners (not to be confused with the Canoe and Kayak group!) are the event organizers. Since nearly the inception of this event 26 years ago Amateur Radio has been meeting the Race Committee's request for support for logistics and safety communications.

Those of you who have joined us in the past years know that the runners sincerely appreciate our presence. Many say so as they run past. This event is so large that police officers from several other agencies come to assist the Groton PD. The Groton Police Department considers the Amateur Radio involvement to be a critical component for the safety of all.

The race event schedule for 2017 is the same as that for the past two years; there is a 5k and a 10k race which will start simultaneously. The 5k course takes a corner in downtown Groton and leaves the 10k course, rejoining it down course so the final segments are the same. The maps, etc from previous years are available on the NVARC Public Service Events page at <http://www.n1nc.org/Events/>

Contributing to the public good is one of the reasons Amateur Radio exists. Our public service events are a key opportunity for us to show our colors, volunteer our skills and equipment, and demonstrate why it is in the public's interest to continue to allocate precious RF spectrum to our the Amateur Radio Service. The Groton Road Race is a low-stress event and a great way to gain more experience with the public service aspect of amateur radio. Please consider joining us on the 30th.

If you are interested in helping at these events but unsure of what is expected of you or what equipment you may need, please ask me (Ralph KD1SM, Stan KD1LE, or John KK1X).

The Squannacook River Runners and the Groton Police Department repeatedly praise and express their appreciation for your assistance in providing communications for this event. I do hope you will be able to join us this year; please let me know.

VE Sessions

de Paul, KD1YH

Last session: three candidates, all passed with new licenses. The MARA VE Team schedules license exam sessions monthly on the 4th Wednesday. Pre-registration is requested, contact Paul KD1YH kd1yh@arrl.net. Sessions will be canceled if no one has registered by Sunday before the scheduled session. If the session is not canceled, walk-ins are welcome, so if you are interested in upgrading or know someone who is looking for an exam session, you may contact Paul at the last minute to see if the session is being held.

Antennas For Sale

The club has a new hex beam antenna for sale, a 5-band Hex Beam by K4KIO. It's about 10 years old but has never been assembled. It does not have the ice kit but that is just extra support ropes. According to the manufacturer [www.w4kio.com]: "This broad band beam is the answer to your dream of a directional antenna that can be mounted on an inexpensive push up mast and in a space no larger than a garden home backyard. Mount it on your roof as many do and work DX you never even heard with your vertical or dipole." NEW \$400 to club members.

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AB1GF also has several other antennas for sale: Cushcraft A4S with 40m add-on \$250. Mosley TA 53 5-band with 40m add-on, 6 bands total \$300. Telrex tb5em Tribander \$200. Interested? Contact AB1GF.

Minuteman Repeater Association Invite

de Bob DeMattia, Minuteman Repeater Association

The MMRA is holding its club meeting at the Leominster Emergency Management Agency, 37 Carter St, Leominster on March 15. Neil, AE1P from Keene, NH will present a talk on station grounding. Being both a ham and licensed electrician, he will have a good perspective on the right way to ground your station for safety, lightning protections, and for RF. This will be a useful talk for many amateurs.

MMRA has a very regional membership, some members will be 50 or 60 miles away from the meeting spot. Since Neil is driving a bit of a distance himself, we'd like to show him a good turnout.

We'd invite members of your club to this event. Please feel free to relay the information below. The information can also be found on our club web page: <http://www.mmra.org>

**MMRA General Meeting
Wednesday March 15 – 7PM
Leominster Emergency Management
37 Carter St, Leominster**

**Truths & Myths about Station Grounding
Neil Goodell – AE1P**

The Old Timers' Lunch

de Tom KIJHC

The Old Timers met on Wednesday March 1st for lunch at the Gene & Steve's Airport Diner on Hamilton St in Leominster. As usual topics were many and interesting. Meetings are the first Wednesday at noon. All are welcome, so come in out of the cold and have some good food and camaraderie. Being “old” is not a requirement!

State of the Repeaters

de AB1GF, KD1YH

As reported recently (and as most listeners are still painfully aware) the W1GZ 145.45 repeater at Burbank Campus has been making a “howling” noise. The output power was also again down, so a trip was planned to troubleshoot the noise and re tune the exciter and PA. Paul KD1YH and AB1GF visited the repeater on both Saturday and Sunday March 3rd and 4th.

We repaired a bad solder joint and loose pad on the PA circuit board; power is now back to 35 watts out. Tom installed rails and slides for 145.45 unit to slide in and out. We separated the PL boards and the receiver PL is now located in the receiver box. We panel mounted the 70cm receiver link and installed power poles and a splitter on the power supply. Both days we left between 6:00 & 7:30pm. Planned future work will be to add a speaker for the 70cm Rx link and repairing the 2m monitor.

The 900 MHz repeater still awaiting installation of the antenna (which we have). KDIYH continues his efforts offsite to set up the new multi-repeater controller.

In the interest of time and space, more repeater photos will be presented in next month's newsletter

An Alphabetic History of Ham Radio Gear...(Sadly All are Gone Now)

de W1HFN

This article is a continuation of “a long-time tube radio fanatic's” series of articles on the past tube-type receivers and transmitters , which I thought might be of interest to others.

AMECO - (American Electronics Company)

While not a major player in the ham radio field, AMECO did make some very interesting gear. Most importantly, the AC-1 Transmitter. They are still very popular today and are going for amazingly high prices on that auction site. *(Photos, W1HFN)*



This 2-tube (6X5 rectifier and 6V6 oscillator) put a huge number of late 50s-early 60s Novice Class hams on the air. Operating only on 40 or 80 meters with plug in coils, the crystal controlled AC-1 ran 15 watts input, about 6/7 watts out. When I was first licensed in 1959, I had one, made a large number of CW QSOs with it and a Hallicrafters S-76 RX. BTW, this TX is still available in kit form, check out: <http://www.thenewameco.com/AMECO> also had another TX, the TX-62. This was a crystal controlled or VFO AM/CW TX for 6 or 2 meters



This TX had an input power of 75 watts on CW or AMECO "Duo-Grid" AM modulation. The tube lineup was: 6GK6 oscillator / tripler, 6GK6 doubler, 7868 driver, 7984 PA, 12AX7 audio amp and 6GK6 modulator. All the stages after the oscillator were broad-banded, so the only tuning was the PA grid level via the Drive control and the PA plate. There was also an accessory VFO available, the VFO621.



AMECO VFO 621



AMECO 2 meter Converter



AMECO 6 meter Converter

AMECO was also famous for their 6, 2 and 1 1/4 meter converters for HF receivers. Back in the day, these converters were used between the VHF antenna and an HF receiver. The output of the converter was usually one of the HF bands, so the HF RX was used as a tunable IF for the VHF band. There were many models, some with tubes some with Nuvistors so I won't go into that detail. *[I had one of their 6 meter converters, which unfortunately got left behind when I moved south, Ed.]*

I would love to get my hands on another AC-1, but they are now too "collectible" for my budget.

Next installment, Barker and Williamson (B&W).

The MARA W1/GaZette

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Annual Dues: Regular \$25

Family \$30

Fixed income \$15

Meetings: 2nd Wednesday, 7:30pm September to June

Montachusett Amateur Radio Association

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MARA owns and operates three FM repeaters co-located on Burbank Hospital in Fitchburg. W1GZ on 145.45 (CTCSS 74.4), AB1GF on 224.34 MHz (CTCSS 103.5) and W1HFN on 927.5625 (-25 MHz) (CTCSS 74.4). The 2m repeater is also reachable via IRLP node 8433 and Echolink node 688832.

WATT'S HAPPENING

Sundays, 0800 local 5330.5 (ch 1) USB
Western Mass Emergency 60M Net
Alternate frequencies are 5346.5 (ch 2),
5366.5 (ch 3), 5371.5 (ch 4), and 5403.5 (ch 5).

Sundays, 0830 local 3944
Western Mass Emergency Net. Alternate
frequency is 3942 in case of QRN, QRM, or
frequency in-use. Also a good idea to scan up
and down 10kHz if you cannot find the net.

Sundays, 0900 local 145.45-
Montachusett Emergency Net

Tuesdays, 1930 local 145.37-
WMEN Templeton Emergency Net

Wednesdays, 1900 local 145.37-
Gardner/Templeton Emergency Net

Nightly, 2100 local 146.97-
Central Mass Traffic Net

First Monday, 1900 local 3943, 7245
RACES Net

Tuesday, Thursday, Saturday, 1800 local 3978
Western Mass/RI Phone Net