



The Minuteman Repeater Association

The Minuteman

Volume 38, Number 5

May 2009



Membership Meeting ~ Wednesday, 20 May 2009 @ 7:30 PM

Astronomy Night (and General Elections)

The Clay Center Observatory

Alan Sliski — Chief Technology Officer, Orbital Therapy LLC

Mr. Sliski will give a brief history of SETI and talk about the recent development of OSETI, the optical search for extraterrestrial intelligence at Harvard's Oak Ridge Observatory, as well as a peek at the technology behind a new generation of radiation therapy equipment. A brief demonstration of a plasma loudspeaker will be also attempted.

Talk in — 146.82

A serial entrepreneur, inventor, physicist, engineer, and amateur astronomer, Mr. Sliski is a generalist in the age of specialization with 26 patents issued and is a co-founder of Orbital Therapy, a start-up designing radiation therapy equipment for treating breast cancer.

Mr. Sliski has worked in a variety of start-up companies in the 128 region and also at the Harvard physics department. He has worked with Paul Horowitz in designing a new generation of SETI instruments, looking for nanosecond flashes of light from distant civilizations.

Nominating Committee Report

| | | |
|-------------------|----------------|--------|
| President | Bob DeMattia | K1IW |
| Vice President | Steve Telsey | N1BDA |
| Secretary | John McGovern, | W1JMC |
| Treasurer | Kevin Paetzold | K1KWP |
| Clerk | Bob Evans | N1BE |
| Director, 2009-11 | Steve Schwarm | W3EVE |
| Director, 2009-11 | Roger Coulson | WA1NVC |

**US Mail
Newsletter is
\$10/year for all
new and
renewing
members.**

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About the Minuteman Repeater Association

The Minuteman Repeater Association (MMRA) is dedicated to Amateur Radio and public service. The MMRA maintains a large system of repeaters in Eastern Massachusetts.

The MMRA meets (usually) on the 3rd Wednesday of September, November, January, March, and May. Meeting time, locations and talk-in frequency vary. These are announced in the newsletter and on weekly nets. Meetings are open to all interested parties.

The Minuteman newsletter is mailed one week before each meeting. Members are encouraged to submit articles. Articles may be sent to the editor via email to newsletter@mmra.org. The deadline for articles is the last Friday of the month preceding the meeting.

Each Tuesday evening at 8PM the MMRA links most of the repeaters for an open net. The topic is "Technical Information and Other Stuff". Join us!

Membership in the MMRA is open to all radio amateurs. Annual dues are \$25 per individual or \$35 per family. See our website for details.

Email to the club leadership should be sent to contact@mmra.org. The MMRA maintains a web site at: <http://www.mmra.org/>

An email distribution list for club members named "MMRA" is at: www.yahogroups.com/

No part of this newsletter can be copied or posted elsewhere without prior approval from the club. Your cooperation in this matter is appreciated.

MMRA QRM Policy

MMRA members and all other operators are strongly encouraged to report repeater activity that does not abide by Part 97 rules or accepted amateur radio practice to the board of directors at contact@mmra.org or via other means.

The most effective (and probably the only effective) way to deal with an individual causing QRM is to NOT engage that individual on the air. Please include the time and date of any incident. Measures are being taken to make audio recordings of repeater activity.

Repeater and Frequency Information

| Location | MHz | PL | Call | Linking | |
|----------------------------|---------------------|-------|--------|---------------------------------|----------|
| | | | | To Hub 1 | To Hub 2 |
| MMRA Voice Repeaters | | | | | |
| Marlborough | 53.810 | 71.9 | W1BRI | PTL | — |
| Marlborough | 145.160 | — | W1MRA | D-Star | |
| Belmont | 145.430 | 67.0 | WA1RTT | — | — |
| Mendon | 146.610 | 146.2 | N1BHI | FTL | PTL |
| Quincy | 146.670 | 146.2 | W1BRI | PTL | PTL |
| Burlington | 146.715 | 146.2 | N1NVL | PTL | PTL |
| Weston | 146.790 | 146.2 | N1BE | PTL FTL Hub2 10-4 | PTL |
| Brookline | 146.820 | 146.2 | K5TEC | FTL | PTL |
| Marlborough | 147.270 | 146.2 | W1MRA | PTL | PTL |
| Hopkinton | 223.940 | 103.5 | N1BHI | FTL | — |
| Quincy | 224.400 | 103.5 | N1KUG | FTL | PTL |
| Weston | 224.700 | 103.5 | N1NOM | FTL | PTL |
| Marlborough | 224.880 | 103.5 | W1MRA | PTL | FTL |
| Weston | 442.700 | 88.5 | W1MRA | Network Hub 2 (PTL to Hub 1) | |
| Burlington | 446.775 | 88.5 | W1DYJ | FTL | PTL |
| Southborough | 449.575 | 88.5 | W1BRI | PTL | — |
| Marlborough | 449.925 | 88.5 | W1MRA | Network Hub 1 | |
| Affiliated Voice Repeaters | | | | | |
| Maynard | 29.620 | 100.0 | W1OJ | — | FTL |
| Norwell | 145.250 | 77.0 | AC1M | PTL | PTL |
| Coventry RI | 145.370 | 67.0 | N1JBC | PTL | — |
| Norwell | 443.600 | 88.5 | NS1N | PTL | PTL |
| Milford | 446.825 | 100.0 | WA1QGU | — | — |
| Marlborough | 447.875 | 136.5 | K1IW | Linked to 6M | |
| Mt. Wachusett | 448.625 | 88.5 | W1OJ | — | FTL |
| Marlborough | 927.700 | 131.8 | K1IW | Linked to 6M | |
| MMRA “Other” Systems | | | | | |
| Marlborough | 144.390 | none | W1MRA | APRS Digipeater | |
| ??? | 145.630 | 146.2 | W1MRA | Fox Box | |
| Internet | Echolink node 94940 | | | | |
| | IRLP node 4133 | | | | |

Notes: FTL = Full Time Linked (or default state)
PTL = Part Time Linked (on schedule or demand)
Note — a repeater can be linked to only one Hub at a time.

PL: PL is required to prevent interference. The code **750** will temporarily disable the MMRA PL on the 2M repeaters.

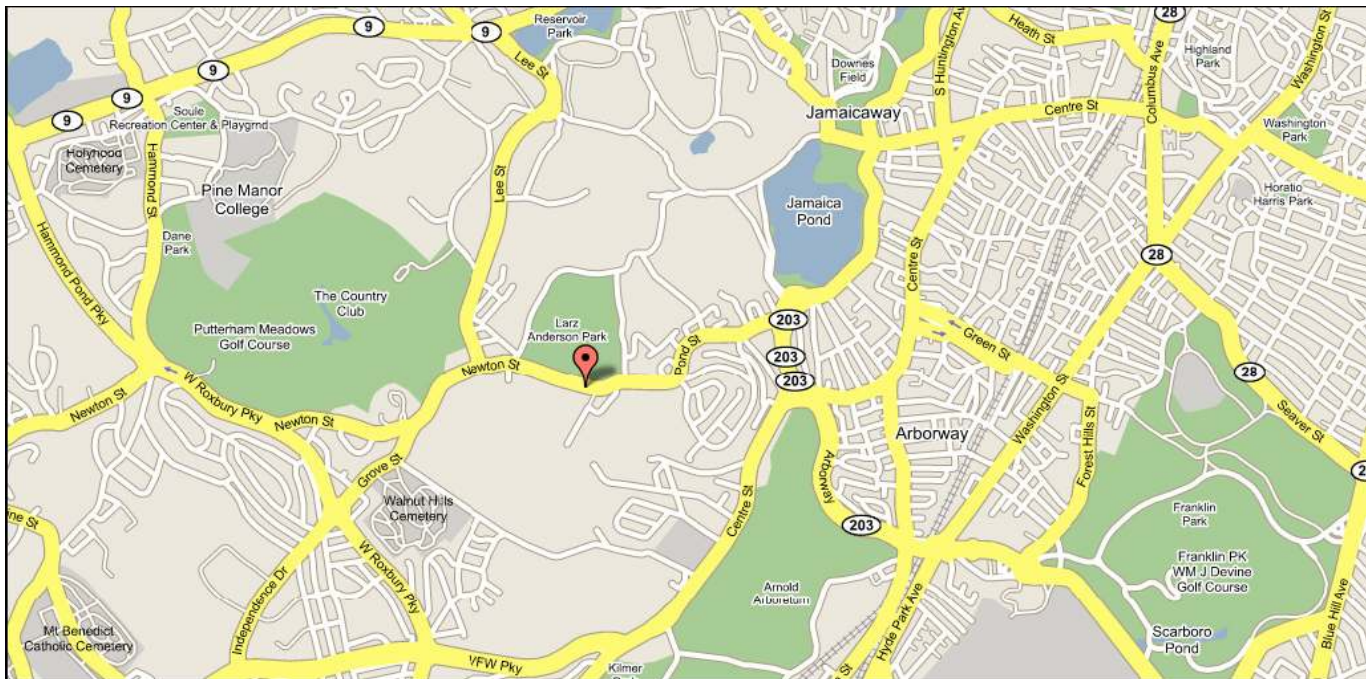
Autopatch: Only the Hub 1 has a telephone line. Link to Hub 1 if necessary, then bring up the autopatch using the 449.925 autopatch codes.

Control codes are sent to members upon receipt of dues.

Membership Meeting ~ 20 May — 7:30PM
Astronomy Night (and General Elections)
The Clay Center Observatory

Talk in freq: 146.82

More information on Page 1



We will be meeting at **The Clay Center Observatory**, 20 Newton Street, Brookline, MA 02445. The Clay Center information phone number is 617-454-2718 **Please monitor the talk-in on 146.82 in case we must make a last-minute change of plans.**

From the West:

Follow Route 9 into Brookline. At the intersection with Chestnut Hill Ave near the Brookline Reservoir turn south onto Lee Street, keeping right at merge with Clyde Street. Continue to the end at the traffic lights and get in left lane. Turn left onto Newton Street, stay in right lane, and look for red tile and stucco buildings on your right. Turn right onto St. Paul's Avenue (some maps call it Mt. Walley Ave.) (Private Way) For the Clay Center: Take 2nd right through main gate, travel up the hill, bear LEFT, over top of hill, and park on Athletic Center roof deck.

From the East:

Follow the Jamaicaaway into Jamaica Plain. Follow the Jamaicaaway south, keeping Jamaica Pond on your right. (Ignore the Pond Street that goes east at the pond.) When the road is

split by a tree-lined park, get in the right lane and turn right at the traffic lights onto the Pond Street that heads west, up hill, and around many sharp curves. When the road straightens out look for Hopkins Road on your left. Take your next left onto St. Paul's Avenue (some maps call it Mt. Walley Ave.) (Private Way). For the Clay Center: Take 2nd right through main gate, travel up the hill, bear LEFT, over top of hill, and park on Athletic Center roof deck.

From the South:

Follow the VFW Parkway into West Roxbury. After Corey Street get in left lane. Look for signs for "Village at Chestnut Hill" and Bertucci's. Turn left onto Independence Drive, follow through lights, then straight through rotary onto Grove Street. Stay in right lane, and go straight ahead at lights by Exxon Station. You are now on Newton Street. Follow Newton Street through traffic lights at Clyde Street. Stay in right lane, and look for red tile and stucco buildings on your right. Turn right onto St. Paul's Avenue (some maps call it Mt. Walley Ave.) (Private Way). For the Clay Center: Take 2nd right through main gate, travel up the hill, bear LEFT, over top of hill, and park on Athletic Center roof deck.

Boston Area Hams Provide Communications Support for Annual Marathon

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More than 250 Amateur Radio operators provided communication support for the 113th running of the [Boston Marathon](#) on Monday, April 20, also known as [Patriots' Day](#). With more than 26,000 official runners and 500,000 spectators along the 26 mile route, the marathon utilized amateurs at the starting line, along the course at each water and first aid station along the route, and at the finish line.



"This is the largest public service event in New England in terms of the number of Amateur Radio operators required for a one-day event, and we can always use more hams to help

us," said Marathon Amateur Radio Communications ([MARC](#)) Course Coordinator Steve Schwarm, W3EVE. "We're glad that the weather was cool and the number of ambulance requests this year was lower than past years, where we had higher temperatures and more medical issues."

Even with the more temperate weather, MARC Finish Line Coordinator Paul Topolski, W1SEX, said the medical tents at the finish line were near capacity by mid-afternoon. "Hams provided communications, status and logistical issue updates between the medical tents to our finish line net control as needed," he said.

The Massachusetts Emergency Management Agency ([MEMA](#)) was active with operations at the State Emergency Operations Center in Framingham, with their operations room acting as a Unified Command Center (UCC) for the marathon. RACES members staffed the communications room at the SEOC, and ARRL Eastern Massachusetts Section Manager Mike Neilsen, W1MPN, staffed the UCC. Neilson fed status reports on any issues along the marathon route into the opera-

tions room, as well as issues from the UCC to the operations room.

"This is the first time we've had an Amateur Radio Operator in the operations room of the UCC," said Massachusetts State RACES Radio Officer Tom Kinahan, N1CPE. "We have been coordinating with the Boston Marathon Net Control and the finish line communications in Boston to provide updates into our station and to our Amateur Radio operator in the UCC."



The Net Control center is located with a line-of-sight to the Boston area and to the entire 26 mile route in case simplex communication is required. More than a dozen

repeaters were utilized to provide overlapping coverage to the marathon route. The Clay Center Amateur Radio Club, the Minuteman Repeater Association, the Framingham Amateur Radio Association and many other clubs in the New England area support the marathon operations.

With so many amateurs placed along the marathon route, ARRL Eastern Massachusetts Section Emergency Coordinator Rob Macedo, KD1CY, placed [Eastern Massachusetts ARES](#) on standby in case something went wrong along the marathon route, or a major incident occurred coincident with the marathon. "This is standard operating procedure for 'Marathon Monday'" he said. "We want our members to maintain a heightened state of awareness during the event."

Patriots' Day -- a state holiday in Massachusetts and Maine -- commemorates the anniversary of the Battles of Lexington and Concord, the first battles of the American Revolutionary War.

MMRA March Membership Meeting

The March meeting was held jointly with the Framingham Amateur Radio Association (FARA). Miles Mann, WF1F, told us all about SSTV on the ISS. Miles' presentation can be found at:

<http://www.mmra.org/spacecamstatclub.pdf>



Left
Miles giving the overview of the ISS SSTV project.

Right
One of the SSTV pictures sent back from the ISS.



MMRA April Board of Directors Meeting

Bob Evans — N1BE — Clerk

The board met at 19:30 EDT on April 15th in the Waltham Weston Corporate Center. Present were K1KWP, WA1NVC, K1IW, W1MPN, KC1US, W3EVE, N1BDA and N1BE.

Kevin, K1KWP spoke first with a Treasurer and membership report. Memberships are up from last year. 173 members joined or renewed in the prior MMRA fiscal year. This year there have been 188 new or renewing members. As a result, there were \$421 additional in dues collected this year.

Bob, K1IW led a discussion of repeater status:

- Low power out on Quincy .67 seems resolved. Roger, WA1NVC and Bryan, W1BRI exchanged a cable on the PA and the different length seems to have alleviated false triggering of the SWR shutdown circuit.
- Burlington .715 linking issues have been resolved by K1IW via a controller reset and reloading some macros that became corrupted.
- Low receive sensitivity at Brookline .82 has not yet been resolved. Suspicion of either feedline or antenna as the root cause has not changed from what was reported in the prior newsletter. In the next few days Roger plans to visit the site with Bryan to label cables and install alternative antenna and feedline as a trial.
- At Belmont .43 an aux. control link is now in service.
- Weston .79 is transmitting distorted audio. The symptoms indicate the link receiver may be off frequency. K1IW plans to investigate this.
- Southboro .575 is not responding to touch tones. It is also stuck linked to HUB1. K1IW will unlink it after the meeting. This again may be an issue with settings stored within the controller somehow getting changed.
- At the Marlboro East site trees need to be removed before they cause problems with the antennas. Roger planned to line up some assistance to work on this since many of the officers were busy with Public Service commitments.
- HUB1 .925 is working well. Echolink out is now being used by members. Roger obtained a donated 100AH AGM battery for backup power on HUB1. The board approved up to \$150 to purchase a West Mountain Radio Super PWRgate PG40S Backup Power System for use in this application. Roger will recycle some no longer useful batteries in the MRW shelter as part of setting this up.
- .27 is frequently keying up with a weak unmodulated carrier and courtesy beeps. This goes out on the link transmitter and, due to proximity, blocks other signals from being heard by the HUB1 receiver. Bob will disable linking by .27 for now to avoid this problem.
- Mendon .61 received audio level is too weak when connected to the network. (No action.)

Bob reported a status update from the Mayor on Marlboro's plans for the MRW site. Bidding has closed for the

"Rehabilitation of Sligo Hill Water Tower & Appurtenant Work". The bids were about \$200K higher than expected, but this is under negotiation. Bob thought the City would make a final go or no-go decision in this cycle rather than deferring that for another round of bidding. This mostly has impact only on the antenna work MMRA needs to perform at that site. Replacement of the MRW radio shelter is being pursued regardless of the tower work. We are waiting for the new shelter to be transported from Maine to Massachusetts.

Bruce, KC1US, gave an overview of public service events using MMRA repeaters for the next few weeks. Between now and May 3rd: the Boston Marathon, Run of the Charles, and Walk For Hunger. Bob is referring all public service requests on to Bruce.

No action was taken on the possible bylaw changes discussed in the last newsletter as the bylaws already cover those issues.

The board discussed nominations for next month's election of officers and directors. All incumbents ending their term and present at this board meeting agreed to be nominated for the office they currently hold. This covered every office except Secretary. For this position, K1KWP and K1IW are pursuing nominations from past officers and members who have expressed an interest in getting more involved with the MMRA.

This left us with a few quick discussions.

- Since it is spring we got the yearly query about what is the MMRA doing about Field Day. We took no action since the active board members have already committed their available time to repeater and public service projects. There can be an MMRA Field Day, but someone would have to step forward to coordinate the event. This is not a huge effort, and there would be support from the board. So if this interests you, please step forward via an e-mail to contact@mmra.org.
- VOIP access -- there have been queries about non-members who would like to use the MMRA system to initiate outbound connects via Echolink. The MMRA is an open system, but this action requires entering the user code in touch tones. The board suggests that a non-member make a request by voice for someone to enter the access code, and encourage members to be helpful to the visitor when a situation like this arises.
- Finally we discussed a picnic/fox hunting event for some time in the Summer. This would combine a ride along with the fox hunters and a club barbecue, in the style of the past foxathon and mobilathon events. We are looking for a public park site for the BBQ, somewhere along route 128 in the Newton to Bedford area would be ideal. Parking and access fees are important considerations.

The meeting adjourned at 21:40.

The Amateur's Code

The Radio Amateur is:

CONSIDERATE...never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...offers loyalty, encouragement and support to other amateurs, local clubs, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE...with knowledge abreast of science, a well-built and efficient station and operation above reproach.

FRIENDLY...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED...radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC...station and skill always ready for service to country and community.

Paul M. Segal, W9EEA, 1928

April Treasurer's Report Kevin Paetzold, K1KWP

| | | |
|---------------|-----------|--------|
| Income | Dues | \$5307 |
| | Donations | 939 |
| | Misc. | 425 |
| | Total | \$6681 |

| | |
|-----------------------------------|-------|
| Number of members this year | = 188 |
| Number not renewed from last year | = 24 |

| | | |
|-----------------|-------------------|--------|
| Expenses | Spent to date | \$4892 |
| | Expected expenses | 115 |
| | Total | \$5007 |

| | |
|----------------------------|---------------|
| Discretionary Funds | \$1674 |
|----------------------------|---------------|

New Hardened Entrance to Quincy Repeater site



On April 1st, Bryan, W1BRI, and Roger, WA1NVC, were in Quincy to repair the system. (See the board meeting minutes on page 5.) Bryan is shown inspecting the new, hardened entrance before climbing in.

Upcoming MMRA Meetings

All meetings start at 7:30 unless otherwise noted.

| Date | Location | Feature |
|-------------|-------------------------|--|
| Sep 17 7 PM | Weston Public Library | MMRA Virtual Tour |
| Oct 15 | Kennedy's | Board Meeting |
| Nov 19 7 PM | Burlington Public Lib. | ARRL Update — Mike, K1TWF |
| Dec 17 | Stratus | Board Meeting |
| Jan 21 7 PM | Westboro Public Lib | 902 MHz — John, N1OTY |
| Feb 11* | Chin's, Marlboro | Board Meeting |
| Mar 5 * | FARA | SSTV on ISS, Greg, WF1F |
| Apr 15 | Watham-Weston Corp | Board Meeting |
| May 20 | Clay Center | Alan Sliski — CTO of Orbital Therapy LLC |
| | * Not the 3rd Wednesday | |

MMRA Leaders

| | | |
|----------------------------|----------------|--------|
| President | Bob DeMattia | K1IW |
| Vice President | Steve Telsey | N1BDA |
| Secretary | Dan Rajczyk | N1KJN |
| Treasurer | Kevin Paetzold | K1KWP |
| Clerk | Bob Evans | N1BE |
| Technical Officer | Bryan Cerqua | W1BRI |
| Director 2008-10 | Clark Conti | N1NVK |
| Director 2008-10 | Mike Neilsen | W1MPN |
| Director 2007-09 | Steve Schwarm | W3EVE |
| Director 2007-09 | Roger Coulson | WA1NVC |
| Emergency Coordinator | open | |
| Net Manager | Larry Banks | W1DYJ |
| Newsletter Editor | Larry Banks | W1DYJ |
| Public Service Coordinator | Bruce Pigott | KC1US |
| VEC Liaison | Bill Wade | K1IJ |
| Web Page Editor | Bob DeMattia | K1IW |

Don't Forget! Every Tuesday @ 8 PM Technical, Informational and Other Stuff Net

The MMRA's repeaters are linked Tuesday nights for the TIAOS Net. Join us! This is a good way to keep up with what is happening in the MMRA and ask your ham related questions.

We need another net control!

If you would like to try your hand at Net Control contact me at W1DYJ@mmra.org – we have a script you can use to start with. This is good practice for a number of ham related operations, from emergency preparedness to contesting.

Current Net Control Operators:

| | | |
|--------|--------|----------------|
| Week 1 | WA1JIM | Jimmy Devaire |
| Week 2 | ??? | OPEN |
| Week 3 | W1DYJ | Larry Banks |
| Week 4 | K1KWP | Kevin Paetzold |
| Week 5 | W1DYJ | Larry Banks |

Newsletter Delivery

If you received this via US Mail, you should think about having it sent by eMail. You will receive it earlier, it will be in color, and it may have MORE great content! Send your request to N1KJN@mmra.org.

US Mail delivery of the newsletter is an additional \$10/year.

Past Newsletters are available at <http://www.mmra.org/>

MMRA VE Sessions

3rd Saturday of each Month
9 AM at the

Marlboro Public Library

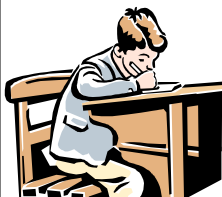
Contact: Bill Wade, K1IJ

781-891-9079

Evenings 6 to 10 PM,

Weekends 8 AM to 10 PM.

Accredited by the ARRL VEC



Membership Meeting ~ Wednesday, 20 May 2009 @ 7:30 PM

Astronomy Night (and General Elections)

The Clay Center Observatory

Talk in — 146.82

Calendar of Ham Radio Events

Public Service Events

See this web site for contact information

<http://purl.org/hamradio/publicservice/nediv>

| | | |
|------------|---------------|-----------------------------|
| May 16 | Westford MA | Apple Blossom Parade |
| May 17 | Devens MA | Parker Classic Road Race |
| Jun 7 | Boston MA | Bikes Not Bombs bike rides |
| Jun 27, 28 | Quincy MA | MS Cape Cod Getaway |
| Jul 3-5 | Fitchburg MA | Fitchburg Longsjo Classic |
| Jul 25 | Devens MA | Memory Ride for Alzheimer's |
| Jul 26 | Haverhill MA | Cycle for Shelter |
| Aug 8 | Stratham NH | MS Seacoast Escape |
| Sep 11-13 | Cape Cod MA | MS Challenge Walk |
| Sep 26 | Berkshires MA | MS Bike&Hike the Berkshires |
| Oct 11 | Boston MA | BAA Half Marathon |

New England Area Ham - Electronic Flea Markets

See this web site for contact information

<http://mit.edu/w1gsl/Public/ne-fleas>

| | | |
|---------|----------------|----------------------------|
| 17 May | Cambridge MA | FLEA at MIT |
| 23 May | Vernon CT | NARC @TolandAg |
| 30 May | Rochester NY | RARA New Location |
| 30 May | Goshen CT | SoBerksARC @Fairgrnd Rte63 |
| 6 June | Hermon ME | PSARC @HS |
| 13 June | Windsor CT | VR+C Mus 115 Pierson LN |
| 20 June | Newington CT | NARL @StMarySch |
| 21 June | Cambridge MA | FLEA at MIT |
| 25 July | N Haven CT | @HI I91x12 |
| 8 Aug | Gales Ferry CT | RASON @VFD |
| 8 Aug | St Albans ME | PARC |
| 15 Aug | Swamton VT | STARC I89x21 |
| 12 Sept | Windsor ME | AARA @FG |
| 12 Sept | Windsor CT | VR+C Mus 115 Pierson LN |
| 13 Sept | Newtown CT | CARA@TownHall |
| 19 Sept | Forestdale RI | RIFMRS @VFW rt146 |
| 19 Sept | Alton NH | MASONS @Lodge |

THE MINUTEMAN REPEATER ASSOCIATION

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Email: contact@mmra.org



WE'RE ON THE WEB
HTTP://WWW.MMRA.ORG/