



The Minuteman Repeater Association

The Minuteman

Volume 37, Number 1

September 2007



Membership Meeting ~ 19 September, 7:00PM (note the early time)

Solar Energy ~ Phil McNamara, N1XTB

Phil is very knowledgeable about solar power and actually powers his home with it. He will be telling us about this alternative energy source and how you can use it to power your station, or even your home.

Talk in freq: 147.27

Westborough Public Library 55 West Main Street 508-366-3050

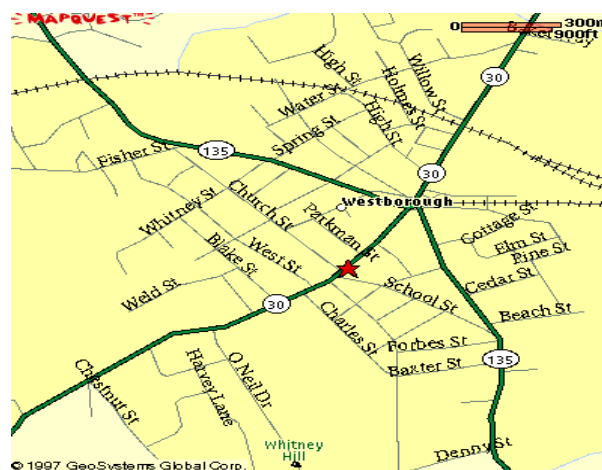
DIRECTIONS: The Westborough Public Library is located two blocks west of the rotary on Route 30 (West Main Street), between Parkman Street and Church Street.

From Route 135 in Westborough:

Follow Route 135 to the rotary in the center of Westborough. At the rotary (the intersection of Routes 135 and 30), take route 30 West (West Main Street.) The library is two blocks ahead on the right, just after the police station, on the corner of West Main and Parkman Streets.

From the Massachusetts Turnpike:

Exit at Route 495 North/Westborough. From Route 495 take Route 9 West. Follow Route 9 approximately 1.5 miles to Route 30 West. Follow Route 30 (about 2 miles) straight through the rotary in the center of Westborough. The library is two blocks ahead on the right, just after the police station, on the corner of West Main and Parkman Streets.



For more information:

<http://www.westboroughlib.org/geninfo.html>

ARRL and TAPR

26th Annual

Digital Communications Conference

September 28-30, 2007 Hartford, Connecticut

This is the premier Digital Communication Conference for Ham Radio. Several members of the MMRA will be going and car-pooling. Technical sessions include APRS, Software Defined Radio, future AMSAT birds, etc. A "Demo Room" for experimenters will be open. Info at <http://www.tapr.org>.

Contact James, KB1LOY or Kevin, K1KWP if you are interested.

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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 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". Please 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" has been established at: <http://www.yahoogroups.com/>

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

Repeater and Frequency Information

| Location | MHz | PL | Call | Note |
|--------------|---------|-------|--------|---|
| Bolton | 29.620 | 131.8 | W1OJ | Affiliated, PTL (+ FTL to 448.625) |
| Marlborough | 53.810 | 71.9 | W1BRI | PTL |
| Norwell | 145.250 | 77.0 | AC1M | Affiliated, PTL |
| Mendon | 146.610 | 146.2 | N1BHI | FTL |
| Quincy | 146.670 | 146.2 | W1BRI | PTL |
| Stoneham | 146.715 | 146.2 | N1NVL | PTL |
| Weston | 146.790 | 146.2 | N1BE | PTL |
| Brookline | 146.820 | 146.2 | K5TEC | FTL |
| Brookline | 146.985 | 88.5 | W1FCC | Affiliated, PTL |
| Marlborough | 147.270 | 146.2 | W1MRA | PTL |
| Hopkinton | 223.940 | 103.5 | N1BHI | FTL |
| Quincy | 224.400 | 103.5 | N1KUG | FTL |
| Weston | 224.700 | 103.5 | N1NOM | FTL |
| Marlborough | 224.880 | 103.5 | W1MRA | FTL |
| Weston | 442.700 | 88.5 | N1NOM | Network Hub 2 (PTL to Hub1 or 448.625) |
| Norwell | 443.600 | 88.5 | NS1N | Affiliated, PTL |
| Stoneham | 446.725 | 88.5 | W1DYJ | FTL |
| Princeton | 448.625 | 88.5 | W1OJ | Affiliated, PTL (+ FTL to 29.620) |
| Milford | 446.825 | 100.0 | WA1QGU | Affiliated, PTL |
| Brookline | 447.875 | 136.5 | K1IW | Affiliated, FTL |
| Southborough | 449.575 | 88.5 | W1BRI | FTL |
| Marlborough | 449.925 | 88.5 | W1MRA | Network Hub 1 (PTL to 448.625) |
| 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 (usually to Hub 1) PTL = Part Time Linked (on schedule or demand) Most repeaters link to the MMRA Hub 1, several can link to an alternate destination |
| PL: | | PL is required to prevent interference. The code 750 will temporarily disable the MMRA PL on the 2M repeaters. |
| Autopatch: | | Only the hub had a telephone line. Link to the hub if necessary, then bring up the autopatch using the 449.925 autopatch codes |
| Control codes are sent to members upon receipt of dues. | | |

A New Amateur's Marathon Adventure

Tom Turner, KB1OQA

As a prior viewer of the BAA Marathon, both in person and on television, I was aware that amateur radio operators played a large role in its success each year, so it was with great pleasure that I accepted the offer of Frank, NG1I, a longtime friend and co-worker, to join him as part of the amateur radio community on April 16th. I'd just recently obtained my ticket, which added additional excitement to this adventure.

I belong to not only the MMRA, but also FARA, who in conjunction with the Boston Amateur Club get together each year to provide vitally needed communications services to the BAA at DMAT, First Aid and Water stations along the route. Our role as amateurs was increased this year due to the fact that several cellular telephone providers who'd previously donated materials and technical support were not present.

It had been very rainy prior to Marathon Day, and there was the distinct possibility that this annual event might be cancelled due to extreme flooding conditions in many locations which placed an extreme burden on Public Safety Agencies throughout the State. TV weathercasters indicated heavy to torrential downpours on the 16th, and the Marathon route was no exception.

Nonetheless, the decision was finally made to go forward with the BAA Marathon as scheduled. I arose about 4:00 AM to attend the briefing for my assigned area in Framingham at the Danforth Museum. Frank was already there when I arrived, and related that weather conditions in his hometown of Leicester were less than ideal for an event of this type. In fact, he almost didn't make it due to the treacherous driving conditions.

Following our briefing, we proceeded to our station at the corner of Waverly Street (Rte-135) and Beaver

Street in the southern part of Framingham to meet the crew of the Red Cross Disaster Unit that was already on-site. There were rehab buses, additional blankets, and other essential supplies provided to allow runners to relax at all First Aid locations if it became necessary.

After we chatted a bit with the crew, a roll call was conducted by "Net Control" with all units. Our designator was "Foxtrot Zero-Three," and both Frank and I checked in and were acknowledged. I'd noticed that the road just west of our location was flooded and contacted the Framingham DPW via Net Control who promptly responded and resolved the problem.

Shortly thereafter, the Marathon began, first with the wheelchair runners. At this time, torrential downpours were passing through the Metrowest area, making travel by these dedicated folks a real challenge. After they passed, the main body of the race began and continued for several hours. The weather gradually improved as the Marathon continued, and by the time the last runner passed our Framingham location, the sun had begun to peek through the clouds.

Our crew was fortunate in that we only one call of a minor nature, although in listening to the radio other stations further along the route were extremely busy. As a first-time participant in this event, I was pleased with the professionalism and radio discipline shown by both field personnel and net controllers, was proud to be a part of the team, and am planning to join you next year.

It goes without saying that a large-scale venture such as the BAA Marathon takes lots of advance planning, with much time spent on logistics. Amateur Radio can and does play an important role and has proven itself over the years to be a "can-do" organization.

Head of the Charles Regatta ~ Opportunity to Participate

On behalf of the American Red Cross of Massachusetts Bay Chapter, I welcome you to the Head of the Charles Regatta 2007 ARC/Ham Radio Support.

This year we will be using both 2m and 70cm along with APRS on 70cm

This year's events will be held from October 19 to 21. If you are available to work one, two or all three of these days, (full days only....its almost impossible to change staff during the day, as all the roads are closed) please let me know. Send your information to RWJeffa@comcast.net

- Ham Radio Call Sign
- Address
- email address
- phone number (home and cell)
- days or day
- jacket size

Look forward to hearing from you all.

Jeff Arnold de K1EMS
American Red Cross of Massachusetts Bay
First Aid Station Committee

President's Report

Bob DeMattia, K1IW

As fall approaches, it's the start of a new MMRA membership year. All memberships run from September 1st to August 31st, so unless you are one of the few that renewed over the summer, your membership has probably expired. For those reading the newsletter online, the first screen you see after you log in will display a prominent reminder of your membership status. For those receiving pony express issues, check the date on your mailing label. The main (and almost exclusive) source of MMRA's income is membership dues. Dues and the sweat equity of the technical committee are what keep the repeaters running, so please remember to renew your membership today.

While I'm on the topic of reminders, my second one is that "This is your club". YOU can affect the outcome of any club decision. Consider how you think the club could be made better and then let a board member know. These could be something like suggesting a topic or speaker for a meeting to a new feature on a repeater. Come to our meetings! We work hard to find interesting speakers for our meetings, and it's a little disappointing for both us and the speaker when they take the time to speak at a meeting and only twelve (of over 200) members are present. We rotate the meeting locations so that at least one should be close to where you live. If you'd like to suggest a meeting location, that's something we are open to also!

Treasurer's Report

Kevin Paetzold, K1KWP

I have been the treasurer of the MMRA for the past four years (I previously served as president and vice-president for several years). Most members are aware of the general membership meetings which are held five times each year. There are also another set of meetings of the MMRA which usually occur in the months which do not have general membership meetings. Even though these meetings are generally known as the "Board Meetings" all members are invited and encouraged to attend as this is the forum where most decisions (and votes) that relate to the policies, operation, and funding of

the club and the repeater system occur. Information which is presented at the "Board Meetings" generally includes detailed financial information. The purpose of this article is to make some of this financial information more visible to the membership at large.

The MMRA fiscal year runs from the time of the elections (which occur at the May meeting each year) to the next election. The May 2006 through May 2007 fiscal year concluded at the election meeting in May 2007 at which point the May 2007 through May 2008 fiscal year commenced.

In the previous fiscal year (May 2006 through May 2007) the income was **\$5777.02** and the expenses were **\$4417.52**. That means that income exceeded expenses last year by **\$1359.45** which is an overall surplus but **\$810.00** in dues for the 2007-2008 year were collected (primarily at 2006 Boxborough ARRL convention due to two year membership incentives) so the actual surplus was really only **\$549.45**.

The above **\$5777.02** income was made up of **\$4127.71** in 2006-2007 dues, **\$810** in 2007-2008 dues, **\$323.00** in miscellaneous income (mostly equipment sales such as EBay and Marlboro Flea) and **\$426.31** in donations.

The above **\$4417.52** in expenses includes **\$800** for electricity and **\$350.00** for phone service (both) at the Marlboro West repeater site. It also includes **\$19.65** in bank fees, **\$44.00** for the PO box, **\$18.50** in state corporation fees, **\$75.00** to the Campion Center for the May 2007 meeting, **\$165.00** for the ISP which serves up the www.mmra.org website, and **\$150.00** for rent at the Marlboro East site. Most importantly **\$1465.97** in repeater system improvements is also included. The MMRA carries liability insurance which has a cost of **\$525** per year. Printing and postage for the newsletter cost the club **\$580.53**. Each member that elects to receive the newsletter by email is saving the club almost **\$10.00** per year.

Although the numbers in this article indicate that the MMRA once again operated in the black for the last year it is important to remember that an event such as a lightning strike could present a large unforeseen set of expenses at any time which would rapidly use up any surpluses that we generate.

Although some members have already renewed their membership we need to collect an additional **\$3148.00** in dues to reach the same membership level as 2006-2007.

I hope that this article has given the members who do not attend the "Board Meetings" some insights into some of the recurring costs for operating the system as well as the one time costs that occur when putting new and/or improved repeaters on the air. If you would like more information about these aspects of the MMRA I strongly encourage you to attend one or more board meetings in the future.

73, Kevin (K1KWP)
Treasurer, Minuteman Repeater Association

MMRA May Meeting

Larry Banks, W1DYJ

Our last meeting of the 2006 to 2007 MMRA year was our Annual Meeting, held at the Clay Center Observatory in Brookline. The MMRA would like to thank Bob Phinney, K5TEC, for arranging the meeting. The meeting was in three parts: Bob DeMattia moderated the Annual Meeting. Ron Dantowitz talked about the work being done at the Clay Center, and then led a tour of the observatory.

ANNUAL MEETING

Bob DeMattia held our Annual Meeting in the conference hall. Short reports from our Treasurer, Kevin, and our Technical Officer, Bryan, preceded the main event — our elections. All nominees were elected, our current officers are listed later in this Newsletter.



Bob doing an election Song & Dance

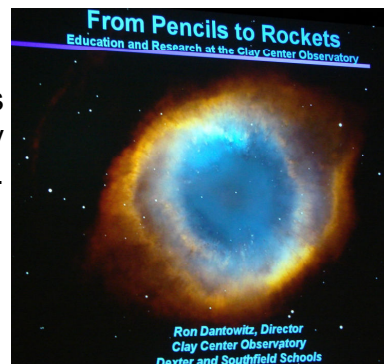
CLAY CENTER DISCUSSION

Ron, the Director of the Clay Center Observatory, described the latest education and research collaborations involving the Clay Center. For more information about Ron, see our May 2007 Newsletter.



Ron introducing his talk.

Ron's introductory slide.



One photo from the Clay Center telescope.

CLAY CENTER TOUR

The gang looking at the new Clay Center tracking scopes.



The Repeaters



The Clay Center Telescopes

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

Update on Stoneham 440

Larry Banks, W1DYJ

As you know by now, the Stoneham 440 repeater is on a list of about 160 repeaters that have been cited by the Air Force as interfering with the two Pave Paws radar systems in the US — most in California but about 40 here. The Pave Paws installation is in Sandwich, has recently been upgraded, which is why this is a problem.

We have received our mitigation information from the ARRL, who has been working with the Air Force and the FCC in an attempt to keep these repeaters on the air. From our original RF output of 30W to a 5 dB omni directional antenna (~63W ERP) we have been asked to reduce our power in the Pave Paws direction by 24 dB — or to 78 mW!

We will discuss this at our 19 Sept. meeting. We have a number of thoughts on how to do this and keep the repeater on the air. We need to act quickly to show that we understand that the 440 ham band is a secondary player to the Air Force. Come with your thoughts as we probably have not thought of everything.

Quincy Antenna Party

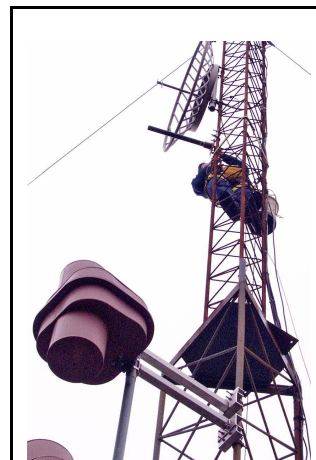
Larry Banks, W1DYJ

Late last April, and too late to make the May Newsletter, the Quincy 2M antenna was raised about 40 feet to the top of the tower. Charlotte Richardson, KQ1F, and Paul Young, K1XM, were the tower crew, for which the MMRA owes a great debt — and they did this for the price of a good dinner!

Bob, N1BE, and Bryan, W1BRI were the support crew.



KQ1F starting her climb



K1XM near the top



N1BE and W1BRI working on the new link antenna



The Resident Hawk protecting the site

Comments from Charlotte:

The water tower is about 60' tall - the tower sections on top add another 40'.

The tower stuff is a specially-built heavy tower at the bottom and a couple pieces of Rohn 45 on top of it, with the station-master bolted to the side of the stand-pipe top section. The heavy-duty bottom tower is a custom job and has a flat plate at the top. The bottom of the Rohn 45 is on a pier-pin base (but drilled out with large heavy bolts connecting the two. It's rock-solid.

MMRA Leaders

| | | |
|----------------------------|----------------|--------|
| President | Bob DeMattia | K1IW |
| Vice President | Steve Telsey | N1BDA |
| Secretary | John McGovern | W1JMC |
| Treasurer | Kevin Paetzold | K1KWP |
| Clerk | Bob Evans | N1BE |
| Technical Officer | Bryan Cerqua | W1BRI |
| Director 2006-08 | Clark Conti | N1NVK |
| Director 2006-08 | Bill Hanrahan | W1WH |
| Director 2007-09 | Steve Schwarm | W3EVE |
| Director 2007-09 | Roger Coulson | WA1NVC |
| Emergency Coordinator | James Cahill | KB1LOY |
| Net Manager | Larry Banks | W1DYJ |
| Newsletter Editor | Larry Banks | W1DYJ |
| Public Service Coordinator | James Cahill | KB1LOY |
| 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 a control operator for the first Tuesday of each month – contact me at W1DYJ@mmra.org if you would like to running the net some evening – 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 | ????? | We Need You! |
| Week 2 | W1EUJ | Dave Goncalves |
| 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 might want to think about having it sent by eMail. You will receive it earlier, it will be in color, it may have MORE great content, and it will save the MMRA \$\$\$! Send your request to W1JMC@mmra.org.

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 ~ 19 September, 7:00PM (note the early time)

Solar Energy ~ Phil McNamara, N1XTB

Talk in freq: 147.27

More Information on Page 1

Westborough Public Library

Calendar of Ham Radio Events

Public Service Events

See this web site for contact information

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

| | | |
|-----------|--------------|--------------------------------|
| Sep 15 | Boston | MA Ride to Cure Parkinson's |
| Sep 16 | Boston | MA Jimmy Fund Walk |
| Sep 29 | Bristol NH | NH Marathon |
| Oct 6 | Hollis NH | Applefest Half Marathon |
| Oct 7 | Boston MA | BAA Half Marathon |
| Oct 7 | Monroe MA | Dunbar Brook Trail Race |
| Oct 19-21 | Cambridge MA | Head of the Charles Regatta |

New England Area Ham - Electronic Flea Markets

See this web site for contact information

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

| | | |
|-----------|------------------|---------------|
| 15 Sept | Forestdale RI | RIFMRS |
| 15 Sept | Windsor CT | VR+C Mus |
| 16 Sept | Cambridge MA | FLEA at MIT |
| 16 Sept | Newtown CT | CARA |
| 22 Sept | Alton NH | MASONS |
| 29 Sept | Gales Ferry CT | RASON |
| 6 Oct | Feeding Hills MA | MTARA |
| 7 Oct | Wallingford CT | Nutmeg Conv |
| 7 Oct | Wakefield MA | Photographica |
| 12-13 Oct | Deerfield NH | NearFest |
| 20 Oct | Manchester NH | NEAntqRC |
| 27 Oct | Waterford CT | TCARC Auction |
| 2 Nov | Feeding Hills MA | HCRA Auction |
| 3 Nov | Londonderry NH | IRS |
| 10 Nov | E Falmouth MA | FARA |

THE MINUTEMAN REPEATER ASSOCIATION

MMRA
P.O. Box 669
Stow, MA. 01775-0669

Email: contact@mmra.org



WE'RE ON THE WEB
[HTTP://WWW.MMRA.ORG/](http://www.mmra.org/)
