



The Minuteman Repeater Association

The Minuteman

Volume 35, Number 2

November 2005



At November's Meeting

Vintage Radio

George Meier, K1GXT



RigPix Database – www.rigpix.com

This month's meeting will host a talk by George Meier, K1GXT. George is an avid vintage radio enthusiast who has restored countless radios from years past. George will discuss some of his projects, and will be bringing along some of the results. The meeting will be held at the Massachusetts Emergency Management Agency Headquarters in Framingham, on Route 9 East, just West of route 126 intersection. See directions on page 8.

NOVEMBER 16th at 7:30 PM – Don't Miss It!

IS YOUR MEMBERSHIP UP TO DATE?

If your callsign appears in the table on the right, our records say it is not. MMRA derives almost all of its operating budget from dues. This is needed to keep the repeaters and newsletters running. If you haven't renewed, please do so by dropping \$25 (\$35 for family membership) in the mail to MMRA, PO Box 669, Stow MA 01775. You can find a copy of our membership form on page 7. You may also pay online at www.mmra.org/access.html. THIS IS THE LAST ISSUE OF THE NEWSLETTER YOU WILL RECEIVE IF YOUR MEMBERSHIP HAS EXPIRED!

Thanks in advance!

AG1D	KD1KY	N1QPR
K1ACA	KB1JQY	N1VJE
K1DZR	KB1KGC	N1XXI
K1IAO	KB1LPC	N1YDF
K1TW	KC1BC	N1YZB
K1WQ	KC7IHG	NU6Q
K1YSO	KC8CEV	W1ABN
K1ZKA	KD1CY	W1CCE
KA1EUI	KN1O	W1CDA
KA1JMF	N1CRK	W1HAI
KA1TOR	N1DAM	W1JBY
KA1TUZ	N1DHW	W1LEY
KA1U	N1FTD	W1WSN
KA6BUV	N1GWY	W2PZ
KB1DXR	N1JOU	WA1CFX
KB1GMS	N1LMI	WA1MDO
KB1ISH	N1NVL	WA1VIE
KB1IYK	N1QIF	WB1FIY

Accurate as of 10/21/2005. Renewals received after this may not be reflected in the table.

★ INSIDE ★

- ✓ Shrewsbury Back on The Air
- ✓ New Antennas for Brookline
- ✓ President's Corner
- ✓ Upcoming Fleas

About MMRA...

MMRA requests that no part of this newsletter be copied or posted elsewhere without prior approval from the club. Your cooperation in this matter is greatly appreciated.

- ✧ The Minuteman Repeater Association (MMRA) is dedicated to Amateur Radio and public service. The MMRA has built a large system of repeaters in Eastern Massachusetts.
- ✧ 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.
- ✧ 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. Each Tuesday evening at 8PM the MMRA links most of the repeaters for an open net. The topic is "Technical Information and Other Stuff". Feel free to 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 mmra@mmra.org. The MMRA maintains a web site at: <http://www.mmra.org>. There is also a yahoogroups email list for club members named "MMRA" see <http://www.yahoogroups.com> for detail.s

Location	Mhz	PL	Callsign	Default Link State	Notes
Brookline BRK	146.820	146.2	K5TEC	Linked	
Hopkinton HOP	223.940	103.5	N1BHI	Linked	
Marlborough East MRE	53.810	71.9	W1BRI	Unlinked	Split Site - Receiver at MRW
	146.610	146.2	N1BHI	Linked	
Marlborough West MRW	147.270	146.2	W1MRA	Linked to BOL 10AM-4PM Weekdays 9AM-7PM Weekends	Can link to either HUB or BOL
	224.880	103.5	W1MRA	Linked to BOL Fulltime	Can link to either HUB or BOL
	449.925	88.5	W1MRA	Network HUB	Echolink #94940
	144.390	-	N1QPR-2	--	APRS
Quincy QCY	146.670	146.2	W1BRI	Unlinked	Can link to HUB or STO
	224.400	103.5	N1KUG	Linked	Can link to HUB or STO
Shrewsbury SHR	449.575	88.5	W1BRI	Linked	Can link to HUB or MFO
Stoneham STO	146.715	146.2	N1NVL	Unlinked	RACES affiliated
	446.725	88.5	N1NVK	Linked	
Weston WES	146.790	146.2	N1BE	Unlinked	RACES affiliated
	224.700	103.5	N1NOM	Linked	
	442.700	88.5	N1NOM	Linked	*Coming Soon!*
Affiliated Repeaters are repeaters not owned by MMRA, but capable of linking into the MMRA system.					
Bolton BOL <i>Affiliated</i>	29.620	131.8	W1OJ	Linked to MRW	see MRW for more info
Brookline East BRE <i>Affiliated</i>	447.875	136.5	K1IW	Linked	
Milford MFO <i>Affiliated</i>	446.825	100.0	WA1QGU	Unlinked	Echolink #3819 Links to MRE 6m
Norwell NWL <i>Affiliated</i>	145.250	77.0	AC1M	Unlinked	
	443.600	88.5	NS1N	Unlinked	

President's Corner

Bob DeMattia, K1IW

This particular issue is very unique. It is the first issue edited and composed WITHOUT Bob Evans, N1BE. Bob had been our newsletter editor for nearly five years and decided to move on to other things. His input, dedication, and hard work will be missed. Over the next few issues, the newsletter will be edited by a rotation through MMRA board members. It is our hope that someone will step forward and take on this challenge, as it is one of the more important aspects of the club. If you are interested in "taking on the newsletter", please send an email to the club at mmra@mmra.org. We anxiously await to hear from you!

73,
Bob, K1IW

Upcoming Flea Markets

Algonquin Amateur Radio Club – Saturday February 18

At the Marlborough Intermediate School, off Route 85 (Bolton St.) in Marlborough. Talk-In on 147.270. Doors open at 9 AM. Admission is \$5. Tables are \$15 paid in advance, or \$20 at the door. Contact Ann Weldon, KA1PON, at 508 481 4988

Framingham Amateur Radio Association – Sunday March 26

The Framingham ARA will hold its spring flea market on Sunday, March 26, 2006 at the Walsh Middle School in Framingham. For more info go to www.fara.org/flea.

Repeater Update

Bryan Cerqua, W1BRI

Brookline Clay center antenna upgrades: 146.82, 446.325

The original Diamond X500 donated to the MMRA was found to be in bad shape. A few weeks after installation, we found that water had found its way into the antenna and destroyed it.

At Bob, K5TEC's urging, we decided to replace this antenna with two separate commercial antennas for the UHF and VHF repeaters. Through a generous donation by K5TEC the MMRA was able to purchase a new DB224 2 meter antenna. This antenna is the same model we use at 146.67 and 146.82. In many years of service, we have never had a problem with either one. The UHF 446.325 antenna is a 8dB gain Celwave PD 1151.

Since these antennas have much higher wind loads, new antenna mounts had to be constructed. The mounts were made using some 12" X 3' pressure treated lumber with DB 365 clamps and a very heavy duty galvanized pipe.

The performance of both repeaters is nothing less than fantastic. I had to go to a wedding in Pembroke, MA and both repeaters worked all the way down the expressway and into parts of Pembroke. Many thanks to Wayne, N1XXI, Bob, K5TEC, and Wayne's friend Tim for helping install the new antennas. Give these repeaters a try and let me know what you think of the coverage.



Brookline antenna mounts ready to get installed.



Antennas installed at Brookline.
2m on left, 440 on right.

Repeater Report Continued from page 3

Shrewsbury, 449.575:



This is the typical of the condition of the former Shrewsbury antenna.

At long last, Chuck, KA1MWP and myself made it up to the Maxtor roof. On October 21st we got the opportunity to troubleshoot the antenna system. The first thing we found was a very high SWR. We took down the antenna and disconnected the short jumper from the Diamond X500. Immediately we found water had gotten into the connector. We also found water in the hardline connector. Since the rubber waterproofing appeared to be in good shape, we could not figure out how the water had got into the system. Then, Chuck noticed that the top of the radom for the X500 was split apart. The water had entered at the top of the antenna, then made its way down through the antenna body and into the feedline. We pulled the antenna apart for further inspection, and could not believe its terrible condition. The ceramic coupling capacitors were burnt and broken, and all the elements were covered in green mold. The foam inserts were soaking wet.

In anticipation of an antenna problem, Bob, K1IW had previously given me an Antennex FG4405. This is a 5dB gain antenna primarily marketed to the commercial market, but manufactured for ham bands as well. It is identical to the one used at the Brookline affiliated repeater. I'm glad I had taken that antenna with me, since it is now what is in place. After checking out the new antenna SWR, Chuck and I waterproofed the connections and installed the antenna on the mast. The results are very good. I now can work this repeater in Milford again! It even hears well enough to decode my DTMF tones, something I don't think I could do in the past. Many thanks to Chuck for helping me out. The whole job only took about 2 hours.

Want to help with the next MMRA technical project? Let us know at mmra@mmra.org.



The new Shrewsbury antenna is the fiberglass vertical on the right.

Marlboro 147.27:

The controller was acting up so thanks to Bob, K1IW for replacing the memory module and a new code load, so far all is working correctly again.

New Weston 442.700:

This repeater is slated to go in at the Weston site. This repeater is basically the older 449.925 repeater except it's using a MASTR II mobile receiver instead of the Hamtronics one. The receiver is complete and is hearing well. The transmitter is a Quintron 90W. The Oven air crystal oscillator module is complete with new TX crystal. All that remains is to finish re-aligning the transmitter. We will need to install a UHF antenna on the Weston tower to complete this project.

MORE PHOTOS – NEXT PAGE

Chuck, KA1MWP, gets the mast ready for the new Antenex FG4405 antenna.



While Chuck is hard at work, Bryan finds a new use for the old Diamond X500 at Shrewsbury, and launches a career in Olympic Javelin throwing. When asked if he'd be ready for the 2008 games in Beijing, Bryan declared "I take things a day at a time"

After the antennas are installed, Wayne and Tim pose for a photo op.



Calendar of Ham Radio Events

2005				
Nov 4	Feeding Hills MA	HCRA Auction	Congregation Church 6:30PM	Jim KK1W 413 245 3228
Nov 5	Londonderry NH	IRS	Lions Club \$3/\$10	Paul K1NL 603 883 3308
Nov 12	E Falmouth MA	FARA	KoC \$3/\$9	Jim WA1GPO 508 548 6405
Nov 19,20	Watertown MA	Photographica	photo	Ed Shaw 617 965 0807
Dec 3	Windsor CT	Vintage Radio Museum	115 Pierson Ln 8AM	John 860 673 0518
2006				
Feb 18	Marlborough MA	AARC	Intermediate School \$5/\$20	Ann KA1PON 508 481 4988
Feb 25	Milton VT	RANV	High School \$5/\$10	Mitch W1SJ 802 879 6589
Mar 18	Pomfret CT	ECARA	Community School Rt 101 & 169 \$2/\$10	Paul KE1LI 860 928 2456
Mar 26	Framingham MA	FARA		Gordy K1GB www.fara.org/flea
Aug 25-27	Boxboro, MA	ARRL National Convention		www.boxboro.org

Flea market info partially from W1GSL list. <http://mit.edu/w1gsl/Public/ne-fleas>.



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

MMRA Club Officers 2005- 2006

President	Bob DeMattia	K1IW	k1iw@mmra.org
Vice-President	Steve Telsey	N1BDA	n1bda@mmra.org
Secretary	John McGovern	W1JMC	w1jmc@mmra.org
Treasurer	Kevin Paetzold	K1KWP	k1kwp@mmra.org
Clerk	Bob Evans	N1BE	n1be@mmra.org
Technical Officer	Bryan Cerqua	W1BRI	w1bri@mmra.org
Director	Tom Muise	W1CDA	w1cda@mmra.org
Director	Steve Schwarm	W3EVE	w3eve@mmra.org
Director	Bill Thorpe	WA1NLR	wa1nlr@mmra.org
Director	Larry Banks	W1DYJ	w1dyj@mmra.org
Emergency Coordinator	Bill Northup	N1QPR	n1qpr@mmra.org
Newsletter Editor	OPEN	contact	mmra@mmra.org
Public Service Coordinator	Kevin Paetzold	K1KWP	k1kwp@mmra.org
VEC Liaison	Bill Wade	K1IJ	k1ij@mmra.org
MMRA Net Manager	Larry Banks	W1DYJ	w1dyj@mmra.org
Web Page Editor	Bob DeMattia	K1IW	k1iw@mmra.org

Minuteman Repeater Association
PO Box 669
Stow, MA 01775-0669
-Membership Form-

- ☐ New
☐ Renewal

- ☐ Individual Membership \$25/year
☐ Family Membership \$35/year

I hereby apply for membership in the MINUTEMAN REPEATER ASSOCIATION, INC. I agree to abide by the rules and regulations of the Association as stated in the bylaws, and understand that acceptance of this application entitles me to all rights and privileges of membership as provided under the bylaws.

- ☐ Check this box to receive your newsletter by US Mail. Newsletters are sent by email by default.

Name _____	Callsign/License Class _____
Address: _____	Home Phone: _____
Town/State/Zip: _____	Work Phone: _____
eMail Address: _____	Cell Phone: _____
Occupation: _____	Employer: _____
Member of ARRL? _____	Other Clubs: _____

Band and Modes you Operate:

	HF	10m		6m		2m		220		440		902+	
		FM	CW/SSB	FM	CW/SSB	FM	CW/SSB	FM	CW/SSB	FM	CW/SSB	FM	CW/SSB
Base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Portable (HT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please check your areas of interest in the club:

- | | | |
|--|--|--|
| <input type="checkbox"/> Antennas | <input type="checkbox"/> Medical Aid | <input type="checkbox"/> Tech Committee |
| <input type="checkbox"/> Association Officer | <input type="checkbox"/> Meeting Setup | <input type="checkbox"/> Social Events |
| <input type="checkbox"/> Board of Dir | <input type="checkbox"/> Net Control | <input type="checkbox"/> Meeting Speaker |
| <input type="checkbox"/> Education | <input type="checkbox"/> Newsletter | <input type="checkbox"/> Special Proj |
| <input type="checkbox"/> Emerg Comms | <input type="checkbox"/> Public Service | <input type="checkbox"/> Tech Library |
| <input type="checkbox"/> Eq. Construc | <input type="checkbox"/> Publicity | <input type="checkbox"/> Website |
| <input type="checkbox"/> Eq. Transport | <input type="checkbox"/> Radio Shelters | <input type="checkbox"/> VE |
| <input type="checkbox"/> Grant Writing | <input type="checkbox"/> Refreshments | <input type="checkbox"/> Field Day |
| <input type="checkbox"/> Legal Aid | <input type="checkbox"/> Repeater Control Op | |

For family memberships, please list the family members you would like included:

Name	Callsign	License Class

Next MMRA Meeting – November 16th 7:30 PM

Our next meeting is at the Massachusetts Emergency Management Agency Emergency Operations Center, located at 400 Worcester Road, Framingham. This is the Southwest corner of the intersection of routes 9 and 126.

From the West - Take Mass Pike East to Exit 12. Travel approximately 2 miles to MA State Police Headquarters on the right, immediately followed by MEMA. MEMA is marked by several tall communications towers on the grounds.

From the East - Take Mass Pike West to Exit 13 (Natick/Framingham Route 30). Take Route 30 West towards Framingham and drive for approximately 2 miles going through all lights until end. Take right onto Route 9 Westbound. (Note that the MEMA communication towers are visible across Route 9 on the eastbound side.) Continue approximately ½ mile on Route 9 Westbound. Turn right into Bread & Circus parking lot to turn around. Take left out of Bread & Circus onto Prospect Street. Take a left at the lights heading Eastbound on Route 9. MEMA is approximately 1.5 miles on the right. Enter through gate.

From the North or South - Take Route 128 (95) to the Mass Pike West, then follow "From the East" above.

A last minute change in plans may be necessary if MEMA needs to respond to an emergency or if there is a change in the Homeland Security Threat Advisory Level. Please monitor talk-in on 146.61/146.820/449.925.

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Stow, MA 01775

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eMail: mmra@mmra.org

