



## The Minuteman Repeater Association

*A non-profit organization providing communications infrastructure and volunteers for community and emergency events.*



# The Minuteman

Volume 46, Number 5

May 2017

### **ANNUAL Membership Meeting ~ Wednesday, 24 May, 7 PM**

***(includes Officer elections)***

***Truths & Myths about Station Grounding***

**Neil Goodell ~ AE1P**

**Location: Leominster Emergency Management (Directions: see page 3)**

**Talkin: 147.27**

***NOTE: This was originally scheduled for our March meeting, but was cancelled due to snow.***

First introduced to Ham Radio at the age of 12, when I was given an old Knight R-100A, and a box full of 73 and Popular Electronics magazine. Got sidetracked with the usual teenage activities, sports and trucks, and did not return back to Amateur Radio until 2002, when I started studying and passed my tech, receiving the call KB1KOX. I then upgraded to general, while the 5 wpm code requirement was still in place, and Extra six months after that, and have enjoyed the Hobby ever since.

One of the best experiences I have had concerning Amateur Radio was being the Site Supervisor for five sites during the 2014 WRTC event held in New England. It was a lot of work but also a lot of fun, and a pleasure to meet and spend time with some of the best of the best in Amateur radio contesting. As far as the hobby goes, I enjoy all aspects: contesting, ragchewing, rtty and digital, homebrewing and antenna building...there is so much to do, never a dull moment.

In my personal life I am a Master Electrician, spent 20+ years as an Electrical Foreman in commercial projects, mostly in Hospitals and Power Plants, and now am the Electrician for the City of Keene in the Utilities Division.

Being an Electrician, I had already known of the importance of Grounding, and, using that to tie in directly to Amateur radio: How important Grounding is to our "Radio Shacks", as far as lightning protection and RF grounding. I look forward to sharing the importance of grounding to your group on the 15th.

**Notice: We will be asking the club membership to approve the purchase of a duplexer for the 53.81 repeater at Marlborough East for \$1000**

#### **Nominating Committee Slate:**

<b>President:</b>	<b>Dave, KG1H</b>
<b>Vice-President:</b>	<b>John, WA1MDD</b>
<b>Treasurer:</b>	<b>Kevin, K1KWP</b>
<b>Secretary:</b>	<b>John, W1JMC</b>
<b>Director &gt;&gt; 2019:</b>	<b>Bob, K1IW</b>
<b>Director &gt;&gt; 2019:</b>	<b>Roger, WA1NVC</b>

#### **Table of Contents**

Next Meeting	1, 3	Treasurer Report	5-6
MMRA Information	2, 9	April Business Mtg	7
President's Corner	4	BOXBORO 2017	8

## 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 each month from September to June. Meeting times, locations, and talk-in frequency vary and are announced in this newsletter and on weekly nets. Meetings are open to all interested parties. Guest speakers and programs of general interest occur in September, November, January, March, and May. The intervening meetings are also open to all members and are for general business.

The Minuteman newsletter is Emailed one week before each general interest meeting. Members are encouraged to submit articles which can be sent to the editor at [newsletter@mmra.org](mailto: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](mailto: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: <http://groups.yahoo.com/>

You can also follow us on twitter @mmraham and like us on Facebook: <https://www.facebook.com/mmraham>.

### 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](mailto:contact@mmra.org) or via other means.

The most effective way (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

Band	XMTR Location	Freq	PL	Call	Linking	
					To Hub 1	To Hub 2
MMRA Voice Repeaters						
10m	Marlboro East	29.680	131.8	W1MRA	PTL	PTL
6m	Marlboro East <i>Rmt receive Marlboro West: PL=100</i> <i>Rmt receive Hopkinton: PL=173.8</i>	53.810	71.9	W1BRI	PTL	PTL
2m	Brookline	145.160	na	K1MRA	D-Star	
	Belmont	145.430	146.2	KC1CLA	PTL	FTL: DARI
	Mendon	146.610		K1KWP	FTL	PTL
	Quincy	146.670		W1BRI	PTL	PTL
	North Reading	146.715		KC1US	PTL	PTL
	Weston	146.790		N1BE	PTL	PTL
	Boston	146.820		K1BOS	FTL	PTL
	<i>Remote receive in Brookline Boston: PL = 127.3</i>					
Marlborough	147.270	146.2	W1MRA	PTL	PTL	
1½m	Hopkinton	223.940	103.5	KB1LOY	PTL	FTL
	Quincy	224.400		N1KUG	PTL	FTL
	Weston	224.700		N1NOM	PTL	FTL
	Marlborough	224.880		W1MRA	PTL	FTL
70cm	Lowell	442.250	88.5	K1LVF	FTL	PTL: 446.775
	Weston *	442.700		KG1H	Network Hub 2 (PTL to Hub 1)	
	North Reading	446.775		W1DYJ	FTL	PTL
	Marlborough	448.225	na	W1MRA	D-Star	
	Marlborough	449.575		W1BRI	PTL	PTL
	Marlborough *	449.925		W1MRA	Network Hub 1	
33cm	Boston *	927.0625	D244	K1RJZ	PTL	PTL
	Marlborough *	927.700		W1MRA	PTL	PTL
		PL out = 131.8				
Marlborough		144.390	none	W1MRA	APRS Digipeater	
???		145.630	146.2	W1MRA	Fox Box	
*Internet	HUB1- 449.925: IRLP node 4133 / Echolink node 4133					
	HUB2 - 442.700: IRLP node 4136; Connected to 220 Reflector 9124 on Tuesdays					
	927.0625: IRLP 4977			Normally linked to the NE900 Reflec- tor, 9125. Linked to MMRA via IRLP for the TIAOS net. Normally linked		
	927.700: IRLP 4978					

Notes: FTL = Full Time Linked (or default state) PTL = Part Time Linked (on schedule or demand)

## 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*

### Directions to Leominster Emergency Management 37 Carter Street Leominster, MA

#### Using Route 2 Westbound: ▶ Take exit 33, "I-190".

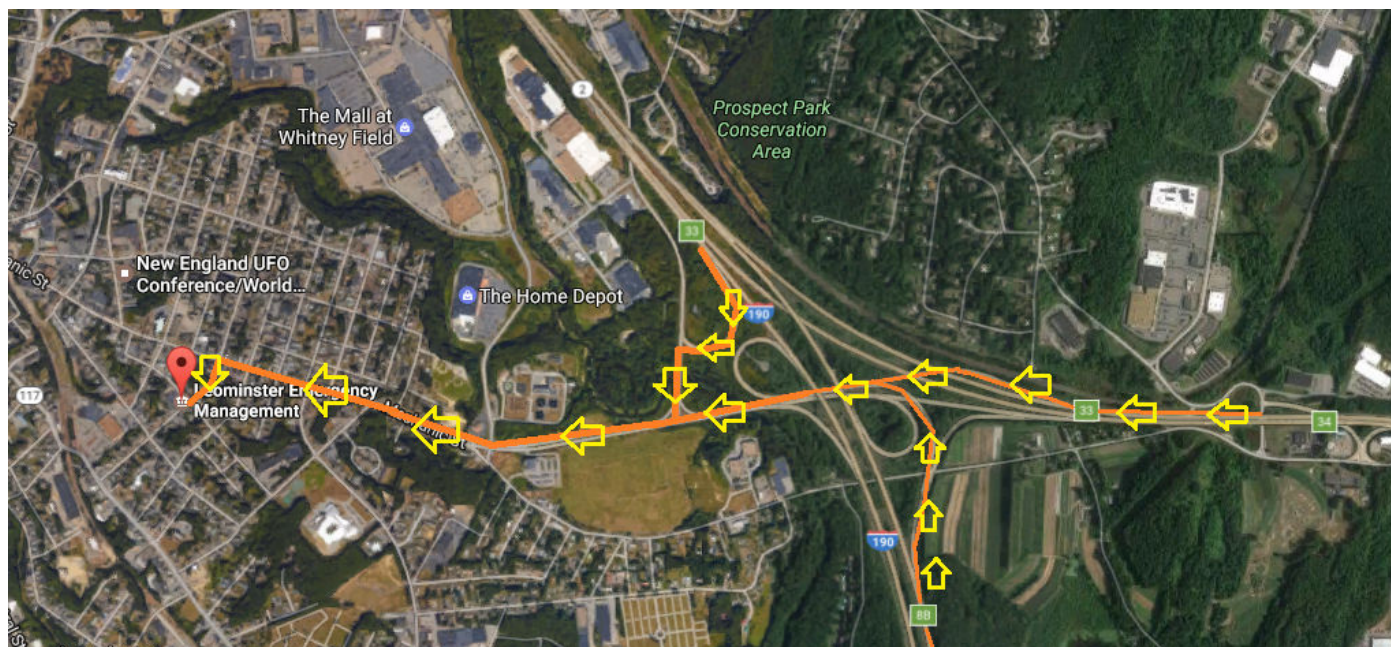
- ▶ 0.4 miles down the ramp, bear left, DO NOT get on I-190. *Bearing left will put you on the Leominster Connector/Mechanic Street.*
- ▶ Follow this for approximately 1.2 miles, then turn left on 5th Ave.
- ▶ Leominster EMA is 0.1 miles ahead at the intersection of Carter & 5th.

#### Using Route 2 Eastbound: ▶ Take exit 33, "I-190 / Mechanic St"

- ▶ Stay to right for Mechanic St. At intersection, turn left on Nashua, *then turn right on the Leominster Connector/Mechanic Street.*
- ▶ Then follow above.

#### Using I-190 Northbound: ▶ Take exit 8B, "Route 2 East"

- ▶ At the split, bear left for Mechanic St. At the next split, bear left again for Mechanic St. This will put you on the Leominster Connector/Mechanic Street.
- ▶ Then follow above.



## **President's Corner ~ David Wolfe, KG1H**

### **Annual Election of Officers**

The time has come for all good hams (members) to come to the aide of their organization: the Minuteman Repeater Association (MMRA). Operating the MMRA is no simple task as its infrastructure is comprised of 22 VHF and UHF repeater systems located across eastern and central Massachusetts linked together by several communication modes. The MMRA officers are always looking for new volunteers with varied expertise, and members are welcome to attend and contribute at the Board meetings.

It is May and election of officers is upon us. Like a commercial corporation, albeit non-profit, the operation of the MMRA Corporation is controlled by a set of bylaws requiring personnel with multiple expertise, all of which are dedicated volunteers. The MMRA Board of Directors consists of the Executive Board, and the repeater trustees. The Executive Board includes nine elected members of the Corporation, five of which shall be the officers of the Corporation. The remaining four members are directors.

The election procedure as described in the bylaws is summarized below:

- ♦ **Nomination by Individual:** Any member desiring to run for a particular elective position shall notify the Secretary of such intention on or before April 15
- ♦ **Publication of Nominations:** The Secretary shall, on or before one week prior to the May meeting, distribute to the membership a complete list of all candidates eligible for election at the annual meeting.
- ♦ **The Executive Board** will be elected by the membership at the annual meeting of the Corporation in May.
- ♦ **Election Procedures:** At the annual meeting, the President shall announce to the membership the names of those candidates eligible for each of the various elective positions.

Only paid members may vote at any meeting of the membership.

Note that we will also be voting to approve the purchase of a duplexer for our 6M repeater and hearing a great presentation from Neil Goodell, AE1P, about Station grounding.

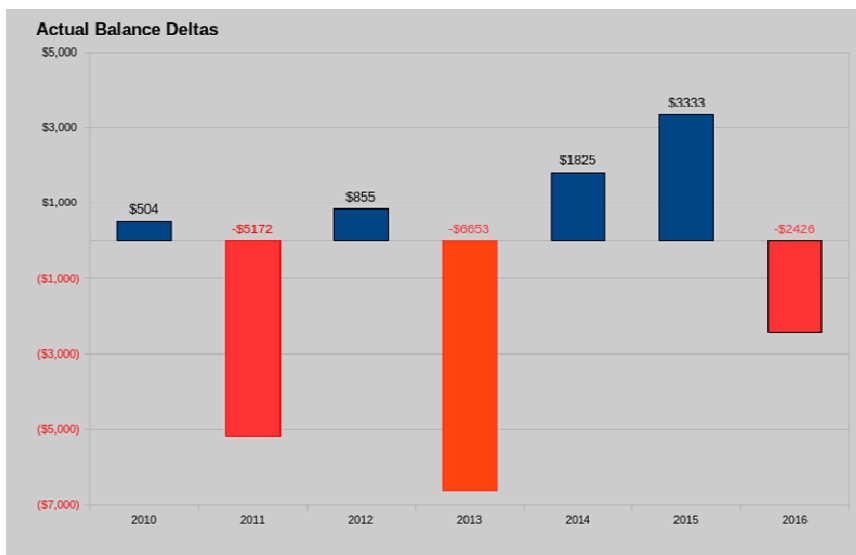


## Treasurer Report May 2017 ~ Kevin Paetzold, K1KWP

The MMRA fiscal year ends soon on May 31. The fiscal year about to end was called 2016-2017. The fiscal year which will start on June 1 will be called 2017-2018. The membership year (dues) ends on August 31.

Most of the spending for this year has already occurred but there is some additional spending which may occur, for example if the membership approves the \$1000 for the 6M repeater duplexor at the meeting on May 17.

The MMRA will run in the red this fiscal year. This is primarily due to the \$6000 investment into another round of Larcen TV transmitter amplifiers which we hope to sell in the future. For those who are new, or who forgot, the MMRA has had a lot of income since 2009 selling these amplifiers. Indeed these sales have financed a great deal of improvements to the system and its infrastructure since 2009. If not for this investment this year we would be more than \$3000 in the black for the year.

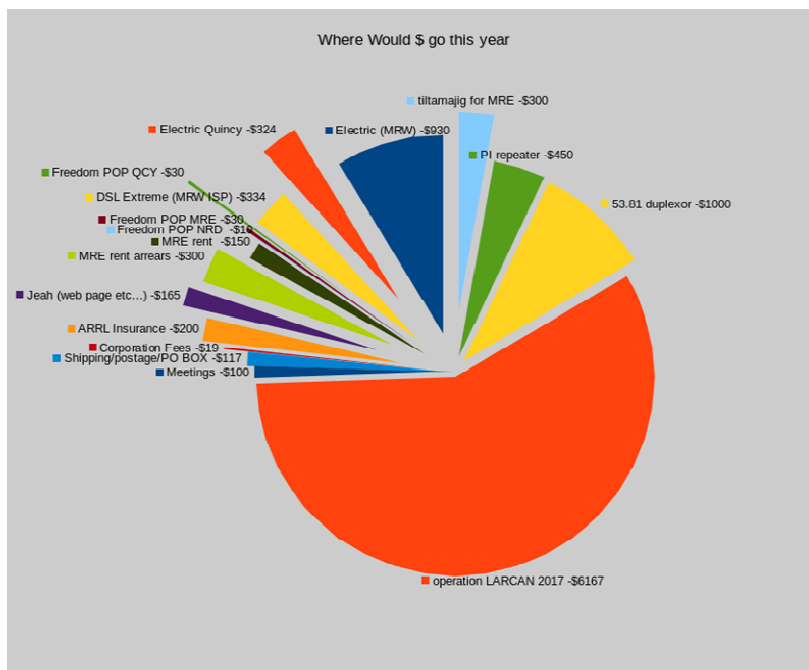


The chart above shows the funds balance delta for the last 7 years. This chart does not include the \$1000 for the 6M duplexor and if that expenditure is approved it will add \$1000 to the (\$2426). \$2426 was less than 10% of the funds the MMRA had at the start of this fiscal year.

Expenditures greater than \$500 must be approved by the membership. Expenditures less than \$500 can be approved by the board. There are some expenses which were approved by the board or by the membership which have not actually yet been spent and may not be spent this fiscal year. A pie chart showing what would be spent if everything that has been authorized was spent is below.

The MMRA received about \$3000 in donations this year. Some of that was donations of money but much of it was donations of material which was sold (usually on eBay and usually by K1IW). The material donations include coax donated by K1RJZ and a computer material donation which was made available by N1DDK. The chart on the next page gives some detail on the income sources for this year. Total income so far is about \$9400. About \$6000 of that income is from dues and about \$1600 of that are dues for next year. This year the MMRA had 230 paid memberships. That is actually a high during the time I have been involved with the club (since about 1998).

The MMRA pays for electricity at the MRW and QCY sites. Last year (not this year) this



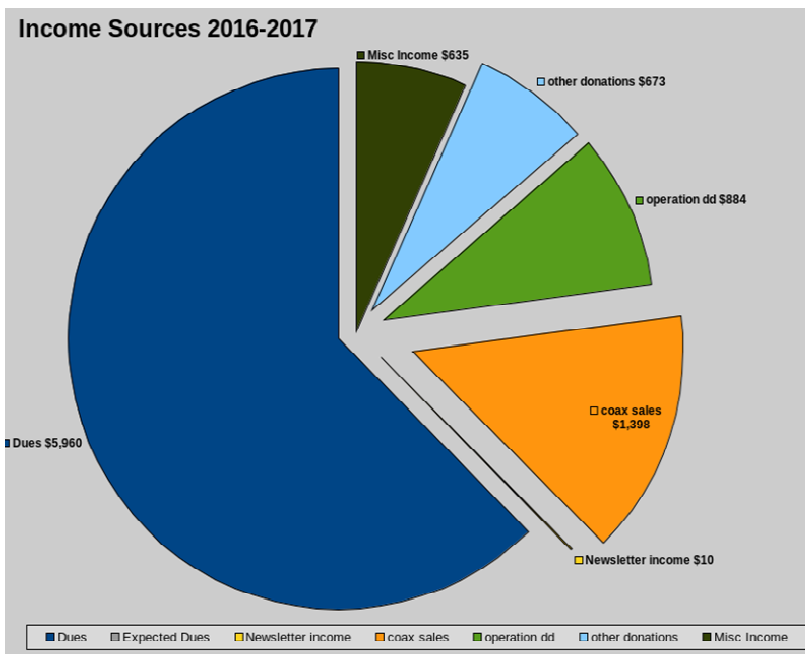
## Treasurer Report May 2017 ~ Kevin Paetzold, K1KWP, continued

totalled almost \$2000. However due to replacing some of the power supplies at MRW this amount was reduced by about \$600 this year (and for future years). MMRA has only been paying for electricity at QCY since the fall of 2013. (Graph is below.)

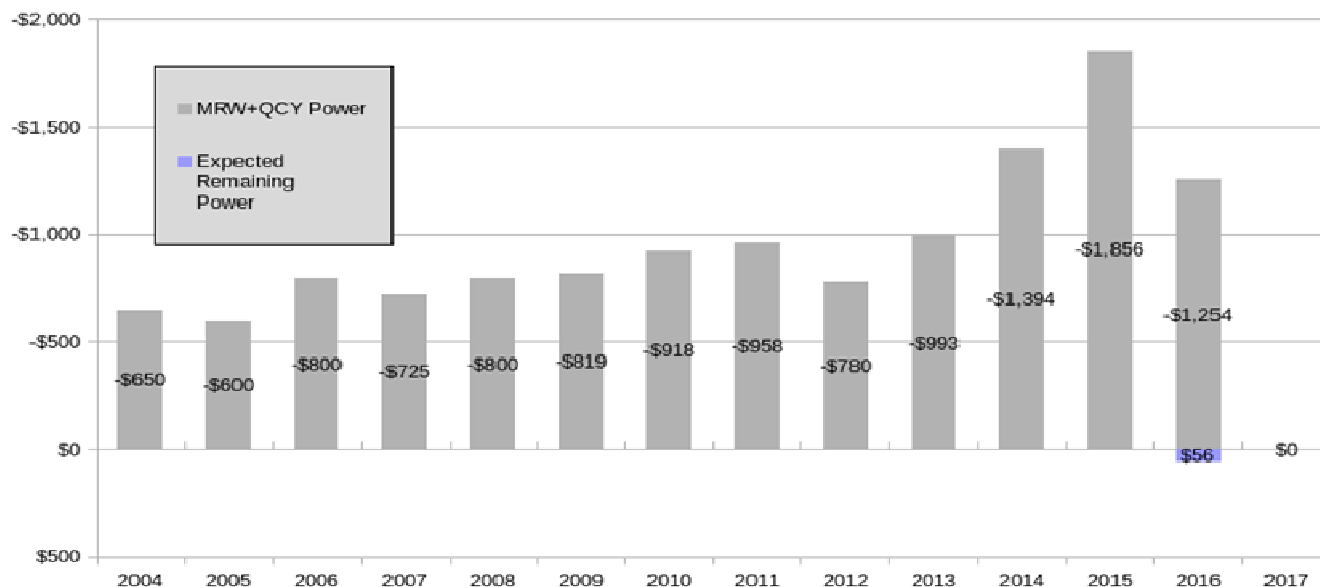
Detailed financial information is presented at almost every business meeting. These meetings generally occur in the months which do not have general membership meetings. They are announced on the [www.mmra.org](http://www.mmra.org) website and in this newsletter. All members are invited to these meetings. Of course much more than the finances are discussed at these meetings including repeater status, repeater decisions, planning, etc....

The MMRA has been very lucky to have had a dedicated and stable group of officers without a lot of turnover for more than 10 years. However that will not last forever and it will be important for new and different individuals to be elected and hold these positions in future years. I strongly encourage anyone interested, new members and old (and hopefully younger members) to get more involved with this aspect of the organization. The MMRA is responsible for a great deal of assets which were assembled through the efforts of many individuals over many years including our 12 repeater sites and 23 repeaters. These assets belong to the Massachusetts ham community and need to be preserved and protected for future generations.

73, K1KWP



MRW+QCY Power



## April Business Meeting

### Bob Evans, Clerk, N1BE

The MMRA Board met on April 19th at New England AirGun in Hudson at 7:00 PM. In attendance were N1DDK, K1KWP, KG1H, WA1MDD, N1NVK, W1DYJ, N1BE and K1IW.

Kevin, K1KWP provided a Treasurer's Report. The current fiscal year ends at the end of May. We have been able to sell some of the recycled equipment recently acquired. This has netted a few hundred dollars to the MMRA. K1KWP reviewed spending to date and more than half went to fund this year's Larcen venture. Kevin also reviewed membership numbers. We have a higher number of paid memberships than any of the previous 10 years.

Bob, K1IW reported on the status of several repeaters:

Hopkinton won't link. K1IW plans to investigate.

Bob went to Quincy and the FreedomPop modem did not receive any 3G signal at the repeater. The thick stone walls of the building seem to be the problem. We discussed alternatives for a better signal at that site. Several of the officers plan to try some alternatives at that site in May. Bob also has a cooling fan to add to the repeater. In addition, we need to replace the padlock on the door that was broken. It seems that our alarm may have scared someone from attacking the inner door. (But maybe not, if it was a town employee.)

In North Reading, the audio is still distorted.

The 147.27 link radio times out, making communication 1-way. N1NVK suggested checking the time-out timer on the link transmitter.

We received a \$1000 quoted price to purchase the 6-meter duplexer that has been on loan at MRE. The membership will be asked to approve this at the May meeting.

In addition, Bob reported on the status of items that are being sold by the MMRA:

There are many failed transistors in the TV channel 5 Larcen amps MMRA recently purchased for resale. K1IW had bought a few replacement transistors. At present we do not have enough to repair all the amps. We also discussed possible conversion to 2-meter conversion of some of the amps -- this gives an amp that could be sold for perhaps \$200 more after hours of work. Due to the unexpected poor condition of these amps, it will take a lot of work to profit from this venture. There was one other buyer, in Canada, who wanted these amps. Bob will investigate a bulk sale of all the amps, the few replacement transistors and the shipping crate to our competitor. Consensus of board was to accept

a loss of a few hundred dollars to be done with this ill-fated project.

We have sold a few rolls of 1-5/8 inch hardline coax; there are several more for sale. The BARRA club responded to our offer of hardline, but did not indicate whether they need it. Bob drove to CT to deliver some of the hardline, only to have the items refused by the buyer who expected a different type of cable.

MMRA will be offering the hardline and other surplus equipment for sale at flea markets. This weekend Dave and Clark will be at the MMRA table in Framingham. And K1IW plans to be at NEARFest.

KG1H and K1IW led a discussion about speakers for future meetings. No definite decisions were made. As the schedule is finalized the agenda will be announced in future newsletters and on the MMRA web site. Possibly the September meeting will be at the Boxboro convention like last year.

Dave discussed nominations for the election of MMRA officers in May. According to our bylaws, the nominations have to be finalized by May 1. At present we have this slate:

President:	Dave, KG1H
Vice-President:	John, WA1MDD
Treasurer:	Kevin, K1KWP
Secretary:	John, W1JMC
Clerk:	
Director:	Bob, K1IW
Director:	Roger, WA1NVC

Finally we considered the Boxboro convention. John, WA1MDD offered to coordinate MMRA group dinner tables for Saturday evening. This will probably be done via e-mail. The board approved an expenditure of up to \$400 for purchase of raffle prizes. K1IW plans to purchase these items at Dayton.

The meeting adjourned at 9:02 PM.

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Addenda: On May 1, via an e-mail ballot, the board approved an expenditure of \$491 to upgrade the North Reading repeater controller and make it accessible from the Internet.

**Next MMRA Business Meeting:  
Wednesday 21 June, 7PM**

**Location: New England Airgun in Hudson**



# 2017

September 8: Special Programs

September 9 & 10: Flea Market, Exhibitors, All Activities

**The ARRL New England Division Convention**  
*at the Boxboro Regency Hotel and Conference Center*  
*off I-495 at exit 28A in Boxborough, Massachusetts*



LARGE FLEA MARKET  
MAJOR EXHIBITORS  
LICENSE-IN-A-WEEKEND  
VE EXAMS  
DXCC CARD CHECKING  
DOZENS OF SEMINARS  
YOUTH PROGRAM

**FRIDAY DX/CONTESTING DINNER**

**SATURDAY GRAND BANQUET**

**Featuring Paul Stoetzer N8HM of AMSAT**

*Effective DX and Satellite Operation with Minimal Antennas*

GENERAL ADMISSION (Good for the full weekend) \$15

FREE for full time student with Student ID

9' x 21' Flea Spaces \$10 (good for full weekend)

Friday and Saturday Dinner \$40 ea.

Whole Convention Package – Admission + both Banquets \$90

Tickets available now at Ham Radio Outlet in Salem, NH & Electronics Plus in Littleton, MA  
or online starting June 1<sup>st</sup> at [www.Boxboro.org](http://www.Boxboro.org)



## Upcoming MMRA Meetings

Saturday, 11 Sept ~ Membership Meeting  
Introduction to MMRA & Door Prize Drawing  
At the Boxboro! 2016 ARRL Convention  
Holiday Inn, Boxborough

Wed, 19 Oct ~ Business Meeting  
Location: Stratus, Maynard

Wednesday, 16 Nov ~ Membership Meeting  
Topic—Linux in the Hamshack,  
Andy Stewart, KB1OIQ  
Location—Holiday Inn, Boxborough

Wed, 21 Dec ~ Business Meeting  
Location: New England Airgun in Hudson

Wednesday, 18 Jan ~ Membership Meeting  
Topic—12V Power for Emergency Power Use in Ham Stations  
Greg Troxel, N1DAM  
Location—Northborough Free Library

Wed, 15 Feb ~ Business Meeting  
Location: New England Airgun in Hudson

Wednesday, 15 Mar ~ Membership Meeting  
Topic—Truths & Myths about Station Grounding ~ Neil Goodell ~ AE1P  
Location—Leominster Emergency Management

Wed, 19 April ~ Business Meeting  
Location: New England Airgun in Hudson

Wednesday, 24 May ~ Membership Meeting  
End of Year Meeting / Officer's Reports / Elections  
Topic—Truths & Myths about Station Grounding ~ Neil Goodell ~ AE1P  
Location—Leominster Emergency Management

Wed, 21 June ~ Business Meeting  
Location: New England Airgun in Hudson

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

The MMRA's repeaters are linked Tuesday nights for the TIOS Net. Keep up with what's happening in the MMRA and ask your ham related questions.

### Net Control Operators:

Week 1	WA1JIM	Jimmy Devaire
Week 2	W1DYJ	Larry Banks
Week 3	KC1CLA	Ed Curley
Week 4	K1KWP	Kevin Paetzold
Week 5	KB1OQA	Tom Turner

To connect using Echolink / IRLP during the Net:

- Echolink Conference \*NEW-ENG2\*
- IRLP node 4133

Previous issues of the MMRA Newsletter are available at:  
[www.mmra.org](http://www.mmra.org) → [Newsletter Archive](#) (on the left)

## MMRA Leaders

### Officers

President	David Wolfe	KG1H
Vice President		
Secretary	John McGovern	W1JMC
Treasurer	Kevin Paetzold	K1KWP
Clerk	Bob Evans	N1BE
* Technical Officer	Bryan Cerqua	W1BRI

### Board of Directors

Director »2017	Steve Schwarm	W3EVE
Director »2017	Roger Coulson	WA1NVC
Director »2018	Clark Conti	N1NVK
Director »2018	James Lee	N1DDK
Director »2017	Bob DeMattia	K1IW

### Repeater Trustees

* Belmont 145.430	Ed Curley	KC1CLA
* Boston 927.0625	Rick Zach	K1RJZ
* Boston 146.820	John Mullaney	K1BOS
* Brookline 145.160	Joyce DeMattia	N1QPH
* Brookline 146.820 Rcvr	Bob Phinney	K5TEC
* Hopkinton 223.940	James Cahill	KB1LOY
* Hopkinton 449.575	Bryan Cerqua	W1BRI
* Lowell 442.250	Vince De La Flor	K1LVF
* Marlborough 53.810, Quincy 146.670;	Bryan Cerqua	W1BRI
* Marlborough: 29.68, 144.390, 147.270, 224.880, 448.225, 449.925, 927.700 — all as W1MRA		
	Bill Northup	N1QPR
* Mendon 146.610	Kevin Paetzold	K1KWP
* N. Reading 146.715	Bruce Pigott	KC1US
* N. Reading 446.775	Larry Banks	W1DYJ
* Quincy 224.40	Bill Dunn	N1KUG
* Weston 146.790	Bob Evans	N1BE
* Weston 224.700	Eddie Mulhern	N1NOM
* Weston 442.700	David Wolfe	KG1H

### Additional, non-Voting

* Newsletter Editor	Larry Banks	W1DYJ
* Emerg. Coord.	Kevin Paetzold	K1KWP
* Pub. Serv. Coord.	David Wolfe	KG1H
* VEC Liaison	Bill Wade	K1IJ
* Net Manager	Larry Banks	W1DYJ
* Web Page Editor	Bob DeMattia	K1IW

\* Appointed

## MMRA VE Sessions

*Third Saturday*

*9 AM at the Marlboro Public Library*

Contact: Bill Wade, K1IJ 781-891-9079

Evenings 6 - 10 PM Weekends 8 AM to 10 PM.

Accredited by the ARRL VEC

**Membership Meeting ~ Wednesday, 24 May, 7 PM**  
**Truths & Myths about Station Grounding**  
**Neil Goodell ~ AE1P**

**Location: Leominster Emergency Management   Talkin: 147.27**

**Calendar of Ham Radio Flea Markets**

**For more information: <http://mit.edu/w1gsl/Public/ne-fleas>**

3 Jun	Brookline NH	NEARC Antique@EvtCr
3 Jun	Hermon ME	PSARC @HS
4 Jun	Fishkill	MtBARC @DwnStCorr
4 Jun	Staten I NY	CPARA @ScoutCamp
4 Jun	Bethpage NY	LIMARC @Brierclif
10 Jun	Windsor CT	VR+C Mus 115 Pierson LN
11 Jun	Queens NY	HoSARC
18 Jun	Cambridge MA	Flea at MIT
16 Jul	Cambridge MA	Flea at MIT
5 Aug	Milo ME	PARC ThreeRiver @Kiwanis
19 Aug	Windsor ME	AARA @FG
20 Aug	Cambridge MA	Flea at MIT
27 Aug	Adams MA	NoBARC @BoweFld
27 Aug	Newtown CT	CARA @Town Hall

<b>8,10 Sep</b>	<b>Boxboro MA</b>	<b>FEMARA NE Conv</b>
9 Sep	Windsor CT	VR+C Mus 115 Pierson LN
10 Sep	Ballston Spa NY	SCRACES @FG
16 Sep	Alexander ME	StCVARC
17 Sep	Cambridge MA	Flea at MIT
8 Oct	Queens NY	HoSARC
8 Oct	Meriden CT	Nutmeg@Sheraton
<b>13-14 Oct</b>	<b>Deerfield NH</b>	<b>NEARFest XXII @FG</b>
15 Oct	Cambridge MA	Flea at MIT
21 Oct	Brookline NH	NEARC Antique@EvtCr
28 Oct	Gales Ferry CT	TCARC @FireCo
29 Oct	Hicksville NY	LIMARC @LeviitHall
11 Nov	Bourne MA	FARA @UpperCC VoTech
2 Dec	Windsor CT	VR+C Mus 115 Pierson LN

**THE MINUTEMAN REPEATER ASSOCIATION**

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

Email: [contact@mmra.org](mailto:contact@mmra.org)



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