



# Prospect Hill Intermod

The News Letter of the Waltham Amateur Radio Association  
and the "Heavy Hitters"

Spring 2004

Check out our web site at [www.wara64.org](http://www.wara64.org) !

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- Spring outing on "The Hill"
- Alternator whine cure
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### PHI NEWSLETTER STAFF

Editor – John Flood KB1FQG  
Circulation – Ann Weldon,  
KA1PON

### Presidents Message

Ann Weldon, KA1PON

Happy Spring,

I hope all are as glad as I am to see and experience warmer weather. I want to thank all of the workers that worked the Auction last November. I know it was a great success because of all of you. The auction has been put on hold for this year, as the attendance and the profit sides were down from previous years.

In place of his previous auction duties, Eliot W1MJ, has started a program to increase membership. It is described later in this newsletter. Any help that you could give Eliot would be appreciated.

Please remember to renew your membership with WARA so that the repeaters can be maintained in the proper manner. Without the auction, we will need to rely more on member dues and contributions to keep things up and running.

Looking forward to seeing many of you at the meetings, and if anyone has ideas for speakers please notify the club officers. Happy summer and volunteer for the many Ham Radio Events over the coming months.

### W.A.R.A. OFFICERS

President – Ann Weldon,  
KA1PON  
V. President – Richard Amirault,  
N1JDU  
Clerk & Treasurer - Andy  
Donovan, WA1GEP  
Asst. Clerk – Jim Finlay, N1HCF  
Asst. Treas. – John Antes,  
KB1EB

### **JUNE W.A.R.A. CLUB MEETING TO BE HELD AT PROSPECT HILL!**

The June 30 WARA meeting will be held on Prospect Hill, near the site of our 5 repeaters. This has become an annual event featuring a cook out and a visit

to the site. Mark your calendars now and plan to join us and meet or re-meet some of the folks you talk to on our repeaters.

Bring your latest radio toy to show off. Perhaps someone could bring one of the many great new QRP rigs and we could operate from the site?

More details and updates will be maintained on the club web site.

Directions will be available on the club web site and talk-in is always on the '64 repeater.

### **SPEAKERS AND PROGRAMS NEEDED FOR CLUB MEETINGS**

There are always opportunities for you and others to make a presentation at one of our monthly club meetings.

If you have a favorite topic that might be of interest to our group, you can contact Ann, KA1PON via email at [ka1pon@amsat.org](mailto:ka1pon@amsat.org)

To see if particular meetings date is in need of a program check the "Meeting Information" section on our club web site at [www.wara64.org](http://www.wara64.org)

**MEMBERSHIP PAYS!  
JOIN W.A.R.A.  
TODAY!**

## **Whine Remover**

©2004 Eliot Mayer, W1MJ,  
24 Hamilton Road, Belmont,  
MA

Upon transferring my Icom IC2100H 2M FM rig from my 1994 Honda Civic to my 2003 Honda Civic, I developed a severe alternator whine problem on both transmit and receive. In both cars, the radio's power cable went directly to the car battery. I guessed that the newer car just had more electronic noise, and that a heavy-duty power-line filter would be needed. But an impromptu troubleshooting session on the '64 repeater led to a much lighter and less expensive solution. This help I received may not have been entirely altruistic - the whine was really annoying everyone, and they wanted it to go away.

The key question was whether I was using a permanent-mount antenna. Indeed, the answer was different in the two installations. I used a magnetic mount on the old car, and a permanent mount on the new. There was a new ground loop at DC and audio frequencies - from radio to car body through the antenna cable and mount, through the car body to the battery, and back to the radio

via the power cable. With the magnetic mount, this loop had been broken at the antenna mount, with capacitive coupling providing grounding only at RF.

My solution was to mimic the use of capacitance to break the ground loop. I replaced the distributed capacitance of the magnetic base with a 2200 pF ceramic capacitor. Rather than hacking up the permanently installed coax, I modified a short coax patch cable, then placed it in line with the antenna cable using a double-female UHF adapter. On the patch cable I removed a short section of the outer sleeve and the ground braid. I then soldered the capacitor across this broken ground connection, and covered up the connections with electrical tape (Figure 1).



The whine disappeared! Unfortunately, stress on the leads destroyed two capacitors. As shown in Figure 2,



I now use a piece of breadboard with solder pads as a strain relief. My thanks go to all who helped me brainstorm the solution, and to WA1HUD for the caps.

## **WE NEED YOU TO CONTRIBUTE!**

Prospect Hill Intermod (PHI) is **YOUR** newsletter. We always need submissions of articles, stories as well as photos to include in each issue. That's what makes it interesting for the readers. So if you have an idea, some thoughts or perhaps some photos of your shack or some event you participated in, send them on in!

You can send things in via e-mail to: [flood@krohne.com](mailto:flood@krohne.com) or snail mail to:

John Flood, KB1FQG  
79 Waltham Street  
Maynard, MA  
01754

## Apartment Antenna Follow-Up

©2004 Eliot Mayer, W1MJ,  
24 Hamilton Road, Belmont,

The Fall, 2003 issue of PHI included my article, "A Simple, Effective Apartment HF Antenna". After 6 months of operation, I have been very satisfied with the results, even on 80 meters, where it is especially short and low in terms of wavelengths.

(Note: The antenna article is available online in the Fall '03 PHI on the web:<http://www.wara64.org/phi/index.htm>.)

Between work, sleep, family, music, and church, I don't have a lot of time for HF operation. Therefore, I tend to compress most of my operating into contesting. I find it an enjoyable and efficient way to see how well I am heard around the world. Here are some results with the new antenna, using about 75 watts:

November Sweepstakes,  
CW: 275 QSOs, 67  
ARRL/Canadian sections, in  
8 hours of operation.

ARRL DX Contest, CW, 260  
QSOs, 70 unique DXCC  
countries, in 15 hours of  
operation.

Best DX by band:  
80M: Poland  
40M: New Zealand  
20M: Kaliningrad  
15M: Egypt, Japan  
10M: Croatia

## A piece of the DX Contest log:

Seq	Bnd	Time	Call	Country
186	40	23:59	S57Q	Slovenia
187	40	00:01	EA5YU	Spain
188	40	00:05	V26G	Antigua
189	40	00:07	EA6UN	Balearic Is.
190	40	00:09	DL3TD	Germany
191	80	00:13	C6AKQ	Bahamas
192	80	00:14	PJ4R	Neth. Antilles
193	80	00:15	FG5BG	Guadeloupe
194	80	00:19	SP8BRQ	Poland

I have been elated to learn that living in an apartment or condo does not rule out having fun on HF.



**The Waltham Amateur Radio Association is affiliated with the A.R.R.L.**

## **Membership Enhancement Program (MEP)**

Eliot Mayer, W1MJ,

"It was an honor for me to organize WARA's annual auction for many years. Besides being a great social event, it paid for a significant portion of the club's repeater maintenance expenses. Alas, despite our efforts to improve the auction and its publicity, the event has been

suspended due to declining interest..."

Thus starts the cover letter I have been mailing to prospective WARA members, along with a sample copy of the newsletter and a membership form. Since I can no longer raise funds for our repeaters with the auction, I volunteered to start the "Membership Enhancement Program" at the January, 2004 meeting. The proposal was approved, with a \$50 budget for printing and mailing.

These mailings go to people who use the club repeaters, but are not club members. The initial response was somewhat underwhelming, but by press time the program has brought in donations from 8 new or returning members.

The MEP actually has several aspects:

- The mailings to potential members
- Mailings to recently expired members (without the sample PHI)
- Email or postcard reminders to expiring members
- Email or postcard acknowledgement to new and renewing members

To minimize postage costs to the club for renewal reminders and acknowledgements, please

keep your current email address on file with the club. If you recently received an email membership acknowledgement from me, we already have the address. Otherwise, please send it to me at w1mj@arrl.net. We will not use your email information for anything but these two annual messages, nor share it with anyone.

If you are already a member, please help keep our repeaters funded during your normal ragchews on the club repeaters. Don't intimidate anyone! Just spread the word that club depends entirely on membership contributions in order to pay the repeater's utility and maintenance bills. If someone expresses an interest, tell them that membership forms are available on [www.wara64.org](http://www.wara64.org).

By the way, so as not to give anyone the wrong impression about our hospitality, my cover letter ends, "At any rate, we encourage you to continue using our free and open repeaters."

**Get involved by attending a monthly meeting.**

**Or perhaps you can help the club with some special skill that you have?**

**Contact a club officer Today!**

## **Waltham Amateur Radio Association Meeting Information**

Unless otherwise noted, meetings are held on the last Wednesday of the month, 7 pm, at Artisan Industries, 73 Pond Street, Waltham, MA. Talk-in is usually available on 146.64 MHz. Everyone with an interest in amateur radio is welcome.

Some of the club members meet for supper before the meeting, typically at Sal's Restaurant on Main Street. Tune into 64 before the meeting for details.

## **The WARA64 E-Mail List on Yahoo Groups!**

The WARA64 "YahooGroups" e-mail list is available and has been running now for about four years now! All you have to do, to get full details of how it works and/or to join is to go to:

<http://groups.yahoo.com/group/wara64/>

There's no commitment and you have choices of checking the e-mail list "new mail" either by receiving it in your regular e-mail OR by logging onto the web site and selectively reading the messages you want to. You can "Un-subscribe" at any time OR change the way you read the mail! Why not give it a shot and give yourself a chance to keep up with the latest goings on with the

Waltham Amateur Radio Association.

Thanks to Lou, N1UEC, for setting this up!

If you're already a member of the list you can post messages to the at:

<http://www.yahogroups.com/group/wara64>

and post or read from there or send email to: [wara64@yahogroups.com](mailto:wara64@yahogroups.com)

If you have problems or questions send email to [n1uec@n1uec.org](mailto:n1uec@n1uec.org) or [webmaster@wara64.org](mailto:webmaster@wara64.org)

## **Items For Sale, Wanted, Swap In The WARA Newsletter?**

**We would be happy to do this as space permits for free at one classified ad per member per edition. Should this become very popular and space is a problem, a small fee to offset costs may be considered.**

**We would also consider requests for commercial advertising but would need to charge a fee to offset additional costs.**

**Please contact:**  
**John Flood KB1FQG**  
79 Waltham Street  
Maynard, MA  
01754

or email:  
[flood@krohne.com](mailto:flood@krohne.com)

## Waltham Amateur Radio Association Repeater Information

### Nets on the 146.64 MHz Repeater

Net Name	Day	Time	Description	Net Manager
<b>Heavy Hitters Traffic Net</b>	Daily	10:30 P.M.	This is a local net of the ARRL National Traffic System. Third party messages may be sent anywhere allowed by FCC and international rules. Check-ins take messages for delivery by local phone call. Newcomers are welcome; just ask for help on net procedures	<a href="#">Mike Ardai, N1IST</a>
<b>Waltham Wranglers Swap Net</b>	Wednesday	9:00 P.M.	Buy, sell, and trade amateur radio equipment. Wants and offerings MUST be clearly amateur radio related.	<a href="#">John Flood, KB1FQG</a>
<b>Heavy Hitters AMSAT Net</b>	Thursday	8:30 P.M.	This is a local <a href="#">AMSAT</a> Net, holding discussions about amateur satellites, SAREX (Shuttle Amateur Radio Experiment), satellite tracking, and various modes of operation. Net features a "satellite of the week"	<a href="#">Ernie MacLauchlan, K1ELA</a>
<a href="#">Skywarn</a>	As Needed		Meets as needed during severe weather The Skywarn program helps the National Weather Service protect life and property by using weather spotters and amateur radio operator reports to make precise predictions. Those interested in participating should be properly trained; several training sessions are coming up. For more info, contact: <a href="#">Skywarn Coordinator Rob Macedo KD1CY</a>	<a href="#">Terry Stader, KA8SCP</a>

### Waltham Amateur Radio Association Repeater Listing

Input (MHz)	Output (MHz)	PL Tone (Hz)	Callsign
52.25	53.25	71.9	WA1HUD
146.04	146.64	none	W1MHL
223.34	224.94	none	WA1GEP
444.075	449.075	none	WA1PBU
927.1375	902.1375	131.8	W1KSZ

Waltham Amateur Radio Association, Incorporated

P.O. Box 411

Waltham, Massachusetts 02454-0411

**2003 Annual Report**

Starting Balance:				\$997.36
	Income:	Contributions	\$565.00	
		2002 Auction	\$518.63	
		W1JCI Estate	\$450.00	
		TOTAL INCOME:	\$1,533.63	
Available:				\$2,530.99
	Expenses:	Telephone	-\$525.71	
		Equipment	-0-	
		News Letter	-\$234.02	
		Insurance	-\$255.00	
		Bank Charges	-\$211.90	
		Auction	-0-	
		Corporation Fees	-0-	
		P.O. Box	-\$58.00	
		Miscellaneous	-\$25.00	
		TOTAL EXPENSES:	-\$1,309.63	-\$1,309.63
Ending Balance:				\$1,221.36

Submitted by:  
Andrew E. Donovan, Treasurer

# WALTHAM AMATEUR RADIO ASSOCIATION

## MEMBERSHIP FORM

The Waltham Amateur Radio Association operates repeaters on 2 Meters (04/64), 6 Meters, 220 MHz, 440 MHz, and 900MHz. The repeaters are free and open for everyone to use. But repeaters have bills to pay, just as you do. A \$15 annual membership would help support these repeaters, as well as help to keep you informed about club activities and other aspects of ham radio. If you cannot afford \$15, please send what you can. If you are inclined to donate more, we will put it to good use. Please print this form, complete it legibly, and return it to:

**Waltham Amateur Radio Association  
Post Office Box 411  
Waltham, MA 02454**

Name \_\_\_\_\_ Call Sign \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone # \_\_ (\_\_\_\_) \_\_\_\_\_ Are you an ARRL member? \_\_\_\_\_

Email \_\_\_\_\_ Web Site Address (URL) \_\_\_\_\_

This year's donation enclosed (\$15 nominal): \$ \_\_\_\_\_

Check if you would like to get involved in any of the following Waltham ARA activities:

- |   |  |
|---|--|
| _____ Repeater Maintenance/ Construction  | _____ Speaker for Club Meetings        |
| _____ Public Service Activities           | _____ Auctions                         |
| _____ Newsletter Writing or Production    | _____ Public Relations for W.A.R.A.    |
| _____ Contribute to the W.A.R.A. web site | _____ Photographer for W.A.R.A. events |

Comments about the club, its repeaters, our web site or the newsletter?:

**Visit the W.A.R.A. web site at: <http://www.wara64.org/>**

**Waltham Amateur Radio Association**  
**P.O. Box 411**  
**Waltham, MA. 02454**

*Please check expiration date on mailing label.*