



# PROSPECT HILL INTERMOD

THE OFFICIAL NEWSLETTER OF THE WALTHAM AMATEUR RADIO ASSOCIATION  
& THE HEAVY HITTERS

[www.wara64.org](http://www.wara64.org)

FALL 2008

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## FEEDLINE UPGRADES

In late May, Lou Harris N1UEC, spearheaded a work party to install 7/8" hardline to upgrade the existing 1/2". New Connectors and weatherproofing materials were also upgraded. Lou not only donated his time but the hardline and materials as well. W.A.R.A. would like to thank Lou and his team Barry Devine K1BFD, Joe Heck K1LBG and all the other volunteers who made it up the hill that day to donate their time and services for this project.



Lou N1UEC atop the WARA repeater site on Prospect Hill.

## 2M REPEATER

We are very pleased to announce that Will Bartlett N1PXA has generously loaned to the club a Motorola Quantar mixed mode (analog and P25 digital) 2 meter repeater!



Will, N1PXA, installing the new dual-mode 64 repeater.

This 125 watt repeater does both analog and Project 25 digital modes, "on a transmission by transmission basis." We believe this unique upgrade is both beneficial to the club and the community, if the need should arise.

Digital communications technology offers great potential for its users allowing much more information to be exchanged beyond voice transmissions. A special thanks to Will for his fantastic contribution to the club!!

*Digital users are asked to use the P25 mode as on a "Secondary Basis" during "off peak usage" times when possible. Analog users may use a 136.5 Hz tone squelch to "mute" the digital carrier if desired.*

## MEETING UPDATE

Meetings are now held on the last TUESDAY each month at 7pm in the Waltham Public Library. (except July and August) "Talk-in" on 146.64 MHz. Check for the

latest updates in the "Meeting" section on our club web site at [www.wara64.org](http://www.wara64.org)

## WELCOME TO ALL NEW MEMBERS!

W.A.R.A. would like to welcome all new members to the club! Thank you for joining and we hope to hear you on the air soon!

## K1UGM OFFERS FIX FOR 2M ANTENNA

Jim K1UGM, trouble shoots antennas and cables atop the Prospect Hill antenna Tower.



K1UGM pinpoints "crunchies"

Wiggling this particular cable caused the familiar-sounding "crunchies" on 64. Jim found the connection to this non-WARA antenna to be quite loose. He tightened it, thus eliminating one source of the horrible crunchies. Thanks Jim!

## NEW 2M ANTENNA

Thank you to all who have generously donated to the W.A.R.A. capital fund! Your

contributions have allowed the club to purchase a brand new "Super Station Master" 2 meter antenna! On October 15<sup>th</sup>, 2008 it was installed by N1UEC Lou, K1QAR Ted and K1LBG Joe. The new antenna should provide many years of excellent service and wonderful QSO's.



Lou N1UEC and Joe K1LBG Installing our new Super Station Antenna, Ted K1QAR is the guy "behind" the camera.

## CAPITAL FUND

We are still in need of more repeater and antenna upgrades. You can help keep *your* repeaters on the air by making a small contribution to the W.A.R.A. Capital Fund. Go online to [www.wara64.org](http://www.wara64.org)

(see the membership link) to donate or, Make checks payable to: "Waltham Amateur Radio Association" mail to:

**W.A.R.A. Capital Fund**  
**Post Office Box 411**  
**Waltham, MA 02454**

## FIELD DAY 2008 & 2009

*Eliot Mayer, W1MJ*

*A successful first-time joint venture between WARA and the Clay Center Amateur Radio*

*Club (CC-ARC) this past June, and plans for FD 2009.*

ARRL Field Day (FD) is an annual emergency preparedness exercise, a "contest that isn't a contest", a social event, and more. WARA had decided to put our historic call, W1MHL, on the air during FD this past June, celebrating our 70th anniversary as a club. Plans to operate from Prospect Hill fell through, and we needed a FD site. The CC-ARC, a school club that had never operated FD, had a great site and wanted to partner with a group that had FD experience. And so we operated together from the grounds of the Dexter-Southfield School in Brookline, MA, CC-ARC's home turf.



*Doug KB1JCY & Alex KB1NTR working stations from the Clay Center, Field Day 2008*

Considering that WARA, the "experienced" partner has only operated two FDs in the last 10 years, the operation went very well. We made almost 1,400 contacts in the 24-hour operating period. We operated two HF stations, a VHF station, and a "Get On The Air" (GOTA) station for new hams and unlicensed visitors. You can see results and photos on [www.wara64.org/fd](http://www.wara64.org/fd). But

perhaps the best outcome of this venture was that it has presented the opportunity for WARA to promote ham radio to a great group of potential young future hams...



*CQ FD DE W1MHL (W1MJ op)*

Although FD occurs after the school year ends, Dexter-Southfield School holds a Summer Science Camp. What's more, the camp is organized by CC-ARC club secretary Bob Phinney, K5TEC. This year, Bob invited the science campers and their families to visit FD, and quite a number did. With this in mind, plans are already taking shape to make the best of this opportunity in FD 2009.

Both clubs have agreed to do FD together again in 2009 – the event is always held on the 4th full weekend in June. I myself would like to get more involved with the GOTA station, and give science camp visitors a chance to operate voice and digital modes on HF. Planning in earnest should begin late this winter. Dan Rajczyk, N1KJN, will serve as FD chairman.

## CLUB STORE

Be sure to visit the W.A.R.A. store to get your Club apparel. All proceeds will be



donated to the club. The items for sale make great gifts too! Visit the store at: [www.cafepress.com/wara64](http://www.cafepress.com/wara64)

Contact Richard N1JDU with questions or comments. Thanks to our Club President, Richard N1JDU for opening and managing the store. Great job Rich!

## ONLINE DONATIONS, DUES INCREASE

*Eliot Mayer, W1MJ*

You can now join, renew your membership, and donate to the Capital Fund online. We are using PayPal as our service provider, but one need not have a PayPal account to donate online – major credit cards are also accepted.

We thank Rick Zack, K1RJZ, for suggesting PayPal and providing some information on how to set up an account with them. Rick told us about how well PayPal has been working to bring donations into another non-profit group that he's involved with. It is already working well for WARA – in the first few months, we've had enough Capital Fund donations for a new 2M repeater antenna.

Because PayPal charges a small commission on each transaction, and because WARA has not increased its dues in decades, we have now increased our annual dues from \$15 to \$20. So far, nobody has objected. In fact, many members were already paying \$20 or more per year to help us pay our bills, and

some make additional contributions to our Capital Fund.

[wara\\_treasurer@w1mj.com](mailto:wara_treasurer@w1mj.com)

## NEW WEBSITE

New Website coming soon!

[www.wara64.org](http://www.wara64.org)

## SLOW SCAN TV

*Joe Hutcheson, KB1CJ*

I recently copied this image on FM from the International Space Station's regular downlink frequency of 145.800 MHz. I got the idea of setting up my transceiver and computer to monitor for images from a conversation on the '64 repeater with Miles, WF1F, who has been promoting experimental transmissions of Slow Scan TV (SSTV) images from the International Space Station. After speaking with Miles, I realized that his simple home station had all he needed, using a freely available slow scan TV program (MMSTV) and a standard radio-computer interface (easy to build and very easy to buy). SSTV is more commonly found on HF bands, with video data encoded as audio tones on single sideband signals, but there is no reason why the same cannot be done on FM. In fact, SSTV transmitted and copied on FM is likely to suffer less distortion from Doppler shift from the high speed pass of an orbiting object, as certainly appeared to be the case from the images received (all with no tuning to offset Doppler shift).

This is a good example of where simple equipment can access ISS and amateur radio satellites, many of which can be used as space-based repeaters or transponders. Depending on the satellite, you can use either CW and SSB or FM, in some cases with a simple hand-held. Beacon signals (both CW and packet) and digi-peaters also are available.



*KB1CJ Received this photo via his SSTV station.*

For more information on space-based amateur radio and links to more SSTV images from the ISS, go to [www.amsat.org](http://www.amsat.org) For an example of a very simple handheld dual-band Yagi, take a look at the May 2008 issue of QST. The Yagi uses your handheld and its rubber duck antenna as the driven element! While a simple Yagi would be helpful, some of the satellites and ISS can be accessed with a simple vertical or just a handheld.

## NEW ASSISTANT TREASURER

Please welcome long time Club member, Bob Martinson, N1VQR for stepping up to the position of Assistant Treasurer. Earlier



this year Bob was proactive and took advantage of a special 150.00 sign up bonus for opening a new bank account. Since then he has also taken care of some other banking issues for the Club. Thanks Bob!

**W.A.R.A. OFFICERS**

- PRESIDENT** - Richard Amirault  
N1JDU
- V. PRESIDENT** - John Flood  
KB1FQG
- TREASURER** - Eliot Mayer W1MJ
- ASSISTANT TREASURER**  
Bob Martinson  
N1VQR
- CLERK** - Jim Finlay  
N1HCF

**TOWER INSTALL**

*Will Meaney, KB1QMY*

To the members at W.A.R.A., I would like to thank Debbie AB1IC and Scott W1TOW, for all their effort in helping to pour a concrete form at my home QTH, Deb, Scott and myself put in two days of setting up and pouring 48 bags of concrete. In addition, thanks to Mike, N1OMJ, for finding the tower, 73, KB1QMY.

**PHI DELIVERY**

PHI will now be distributed via Email as a .pdf file. If you would like yours sent via USPS first class "Snail Mail" Please contact Eliot W1MJ [wara\\_treasurer@w1mj.com](mailto:wara_treasurer@w1mj.com)



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

**FT-7800 REMOTE HEAD MOUNT**

*Joe Hutcheson, KB1CJ*

I love my FT-7800 mobile rig with its remote control head, but one problem kept driving me crazy (pun intended).



With precious little space on the dash, Velcro offered an ideal mounting solution. Unfortunately, the mic connects to the passenger side of the remote, which means repeated movement of the mic cord tends to pull the unit loose – either due to failure of the glue holding the Velcro in place or release of the matching Velcro itself. I've tried different brands of heavy-duty Velcro and various other mounting schemes, all with only limited success. Inevitably, I would end up with a loose control head dangling from the mic cord in my hand.

While wandering aimlessly through a RadioShack recently (proof, yet again, that I am in serious need of a life), my eyes fell on a bag of black plastic nail-in coax clips.



I wasn't about to start driving nails into my dashboard, but it occurred to me that the black clips would go well with the car's interior color scheme, and just maybe the space between the edge of a panel and the surrounding, molded dash might be offer a good fit to wedge in the nail without doing any damage. Sure enough, the fit was nearly perfect – tight enough to hold the clip in place, yet loose enough to allow the nail to be inserted and removed without chipping or damaging the dash surfaces. After judicious use of a black Sharpie, the bright head of the nail blended in with the color of the clip.



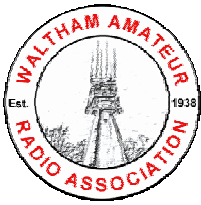
Now, when I want to remove the remote control head, there's plenty of room for the mic connector to slide through the coax clip, or I can simply rotate the clip or pull it free to remove the head with the mic cord still connected. With the open side of the clip facing away from the unit, my movement of the mic cord leaves the remote head solidly in pace.

**PHI NEWSLETTER STAFF**

**EDITOR** – Mark Bolls K1KGG  
*Please submit all articles to [mark@k1kgg.net](mailto:mark@k1kgg.net)*

*Thanks to all who have contributed to this issue of PHI*





# WALTHAM AMATEUR RADIO ASSOCIATION

## MEMBERSHIP FORM

The Waltham Amateur Radio Association operates repeaters on 6 Meters, 2 Meters, 220 MHz, 440 MHz, and 900 MHz. The repeaters are free and open for everyone to use. But repeaters have bills to pay, just as you do. A \$20 annual membership would help support these repeater expenses, as well as help to keep you informed about club activities and other aspects of ham radio. If you cannot afford \$20, please send what you can. If you are inclined to donate more, we will put it to good use. Please complete this form legibly, and return it to:

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

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

Street \_\_\_\_\_

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

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

Email \_\_\_\_\_

This year's donation enclosed (\$20 nominal): \$ \_\_\_\_\_

How would you like to receive our club newsletter?

Email

First Class Mail

**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 \_\_\_\_\_ Public Relations for W.A.R.A.

\_\_\_\_\_ Newsletter Writing or Production \_\_\_\_\_ Photographer for W.A.R.A. events

\_\_\_\_\_ Contribute to the W.A.R.A. web site

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



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Waltham, MA 02454**



*Please check your membership expiration date on mailing label.*

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