



PROSPECT HILL INTERMOD

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

www.wara64.org

SPRING 2013

INSIDE THIS ISSUE!

- THE BOSTON MARATHON
- DXPEDITIONS KEPT SIMPLE
- READERS' HAM SHACKS
- GUESS WHO?

THE BOSTON MARATHON & AMATEUR RADIO COMMUNICATIONS

Steve Schwarm, W3EVE

The Boston Marathon is one of the most complex public service events operated by amateur radio operators. It uses a significant percentage of the amateur radio infrastructure in the Boston area. Many people do not realize that what makes the Boston Marathon more complex from a communications point of view is that it is one of the few marathons that is actually run in a straight line. Most other marathons are run in circles or an in-and-out pattern, decreasing the maximum communications distances involved by at least half.

Another interesting complexity is that the road system in the Boston area is divided by the marathon route and can only be crossed in a few locations. This divides a large part of the suburbs of Boston into those north of the marathon route and those south of it. Where this becomes a significant issue is in managing the medical sweep buses. These are the buses that visit all of the first aid stations on the course to pick up runners that cannot finish and transport them back to the center of Boston. This is where the Waltham Amateur Radio Association's repeater on Prospect Hill plays a significant role. For the 13 years I have been organizing the course communications and many years before that, this repeater has been the key mode of communications with the medical sweep buses. It is one of the few repeaters in the Boston area that will cover the entire course with high reliability.

Over the last six years we've been developing a new approach to managing the medical sweep buses. This approach requires more

communications with them than we previously had. It was a real education in communications information flow to realize that one frequency was not adequate for that level of communication. So we recently have been using two repeaters, but your repeater continues to be the best performer in this mission. We have significantly reduced the maximum wait time of runners being transported to the finish line. Of course a lot of this really is affected by traffic which we have little control over.

Then there was 2013. It was a real game changer. For the first time in its 117 year history the Boston Marathon had to be stopped. There were still several thousand runners on the course when the bombs went off near the finish line at 2:50 PM. Not knowing whether there were more devices and what the real intent was, the leadership decided the best action was to stop the event. Prior to this, things were going extremely well. The weather was perfect for running, but it was not good for standing still in typical running attire. We had large numbers of runners who were getting cold and needed shelter. One of the new features this year were more of the large medical tents on the course. Previous years there were four but because of the weather last year four more were added. These tents had heat and air-conditioning.

The medical sweep buses were now pressed into action as transport for runners to the larger medical tents and to some off-course shelters. The management of these buses made use of amateur radio communications. At the time they were the only transportation system we could use to move these runners to safe and warm locations. Each bus is staffed by a three person team, the driver, an amateur radio operator and a medical first aid person. This makes them ideal for dealing with any issues during the transport as well as when they finally reach their destination.

I'm proud to say that amateur radio was a key component of the success in managing this crisis. The Waltham Amateur Radio Association 146.64 repeater was a very important part of that success. We make use of in excess of 15 repeaters during the marathon but few of them have the coverage

and performance that your repeater on Prospect Hill's has. Thank you to all the members of the Waltham Amateur Radio Association for keeping it in such outstanding operating condition. I look forward to talking to you on it, which is where I normally listen when I'm traveling back and forth to work.

DXPEDITIONS KEPT SIMPLE – PJ2/W1MJ

Eliot Mayer, W1MJ

My wife Irina likes to travel to warm places in the winter, and where practical, I try to have such travels double as low-key DXpeditions. This past January, we went on such a "hamcation" to Curacao in the southern Caribbean Sea.

All the ham gear for this trip, as well as my clothing and such, fit into one suitcase within the 50 pound airline limit. I brought my Elecraft K3 HF rig, a Samlex switching power supply, a tiny Whiterook MK-44 paddle, a small pad of paper for logging, thin wire (AWG 24 or so) for a simple antenna, and not much else. Having scratched the K3 display cover on a previous trip, I added a little packing material this time. Here is the entire station shown after unpacking back at home:



From our second floor hotel room, I tossed a fishing weight over a tree branch, with fishing line attached. I used this to string out an end fed wire, roughly 30 feet long, about a quarter wavelength on 40 meters. As a counterpoise, I laid down an equal length of wire around our room, using painters tape

to keep it close to corners and out of the way. For a previous trip, I had added the optional auto-tuner to my K3, so I could use this wire on most any HF band.

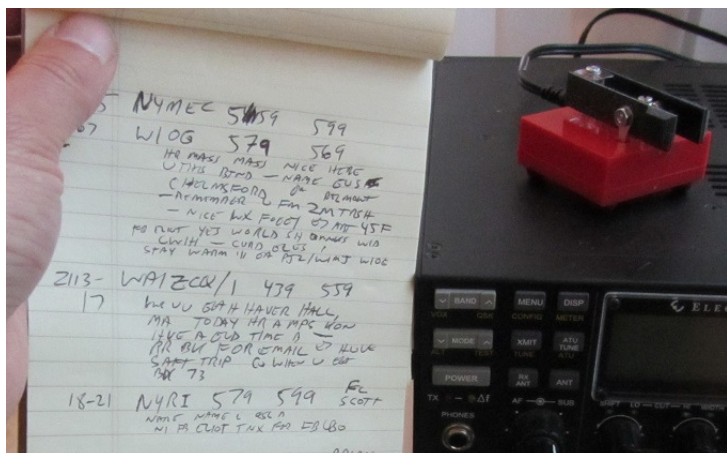


I was pleasantly surprised to learn that operating in many DX locations has become much simpler than in the bad old days. I didn't have to apply for a license or pay a fee to operate as PJ2/W1MJ. To learn about this, see www.arrl.org/cept.

On previous hamcations, I have typically operated in the wee hours of the morning before Irina awakens so as not to cut into the regular vacation activities. Unfortunately, there was horrible local noise during the hours of darkness, perhaps from some of the outdoor lighting at our hotel. So instead, I operated in the late afternoon, after returning from the beach and before going out for supper. This turned out to be a great time to work the US and Europe on 30 meter CW. I had some small pileups, and even managed to work old friend WA1ZCQ one afternoon. Carl was running 4 watts from one of his typical QRP expeditions.



mainly along the north coast. Here we are at one of them, Playa Lagun:



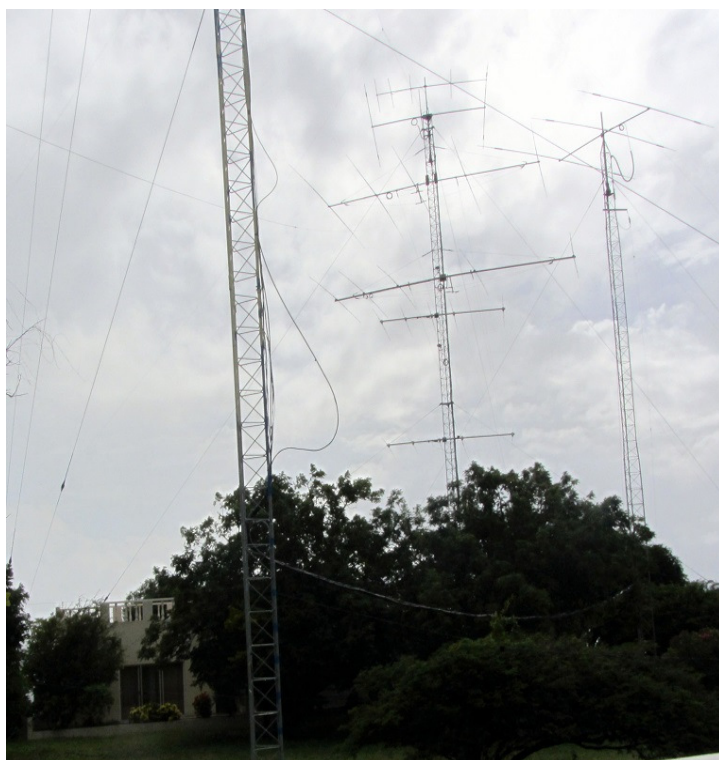
Another way to run a simple DXpedition is to operate from an existing station. I looked into arranging some air time at the PJ2T rental property, but it was not available during my visit. I did make a side trip one afternoon just to drool over the antenna farm, and maybe I'll go back there some day – anyone interested in a DXpedition? Here is part of PJ2T's antenna farm. For more, see www.pj2t.org

I had promised to QSL all contacts via Logbook of the World (www.arrrl.org/lotw), so I had to get my paper log into suitable electronic format. Fortunately, Joe KB1CJ once sent me an Excel spreadsheet he had created for this purpose, and it worked well for this task. I just typed my log info into one sheet of the file, and it instantly appeared in "ADIF" format on another sheet. I saved the ADIF sheet as a text file, which could then be processed by the LoTW software. Let me know if you'd like me to send you a copy of this handy Excel file.

JOE'S HAM SHACK

Joe Hutcheson, KB1CJ

Here are two pictures of my rock-mounted vertical support. Ground conditions here in New England may be pretty poor, but if you need to put up a vertical without pouring cement, those rocks do come in handy. The antenna is a Cushcraft R7000, with elevated radial counterpoise. No beam in terms of performance, but does OK for CW and digital modes on 40M and up.



Regarding the normal vacation activities, Curacao has some bays with nice swimming and snorkeling,





KB1CJ Inexpensive SDR project

The other is a picture of my little SDR for cheap hams project. The silver project box has an RTL dongle (cost \$20) and an HF up-converter (cost \$35) packaged together, with a black battery case on the outside to power the converter independently of USB (to reduce noise). The USB dongle lying on top of the project box is the actual RTL dongle (at \$20 a piece, I got an extra). The small square near the base of the antenna is a RadioShack FM trap (a lot of broadcast antennas here in Needham). With this, I can copy from below the AM broadcast band to 1.2 GHz. It's pretty cool to be able to see about 2 MHz at a time on the computer display, and it is not a bad receiver given the investment.

DICK'S SHACK

Richard Solomon, W1KSZ

While not a Dues Paying Member of WARA, I have been associated with the Waltham Repeaters since the 04/64 machine was the 01/64 machine. My first meeting with "Big George" [K1MON, later W1ME]



was at the old Graham Radio Ham Store in Reading Center.



W1KSZ shack, the neatest it's been for some time. My HB 6 Meter converted SB-220 is on the right.



Dick, now retired and living "the good life" outside of Tucson where there is no snow (well, not much) and no lawn to mow.

TAXI MOBILE SHACK

Donald Carasso, N1YAN

These are pictures of my taxi cab, and the bonding of my taxi cab, for HF radio I'm running a Yaesu FT-857D. I think the ATAS 120 antenna is perfect for a van when you don't want to run too much height in your vehicle. For my application, the 857 works best because it is so compact. While driving in the city all day I do go through some low clearance areas.



Taxi Mobile Shack



Yaesu ATAS-120A HF/VHF/UHF Antenna



A WORD FROM OUR VICE PRESIDENT

William Meaney, KB1QMY

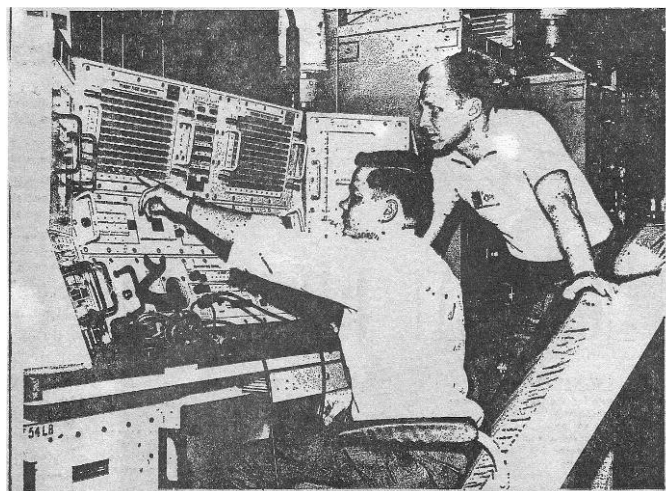
Hello to all WARA club members. I am William P. Meaney, KB1QMY. Some call me either Will or Bill, I answer to both. I just wanted to take the time to thank all of the members for a strong turnout during our recent elections. I am very proud to serve you and the board as your newly elected vice president for the Waltham Amateur Radio Association.

I look forward to the upcoming annual WARA picnic as well as Field Day 2013 with the Clay Center. I am optimistic to see other events, and speakers for future club meetings, for which I would like to have a list available soon. I would also like to encourage members to approach me with any comments or concerns you may have which I look forward to hearing from you.

Thank you for your time, help, and ideas. Let's have a good summer!

GUESS WHO?

Answers can be found at the end



(Photo 1, Person on the Left)

W.A.R.A. REPEATERS

Input	Output	PL in	PL out	Call
6m off	6m off	6m off	6m off	off
**146.04	146.64	136.5	136.5	W1MHL
223.34	224.94	none	none	W1MHL
444.075	449.075	88.5	none	WA1PBU
902.1375	927.1375	131.8	100	W1MHL

**2 Meter [EchoLink](#) Node 490278
2 Meter [Apco P25](#) NAC is 293



(Photo 2, Person on the Left)

SECRETARY WANTED

We are just about there with just one position left. If you would be interested in taking the position of Clerk, aka Club Secretary, please step forward.

W.A.R.A. OFFICERS

PRESIDENT - Richard Amirault **N1JDU**
VICE PRESIDENT - Will Meaney **KB1QMY**
TREASURER - Bob Martinson **K1REM**
ASSISTANT TREASURER - Eliot Mayer **W1MJ**
SECRETARY- Open, Your Name **CALL SIGN**





(Photo 3)

We would like to see *YOUR* photo in the next issue of PHI. Do you have a photo of yourself operating your equipment? Someone else's equipment? Even an old school or prison mug shot will do fine! Simply, submit your "Guess Who?" photos to the PHI staff for 15 minutes of fame!



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

Guess Who? Answers

Photo 1: Bob, K1REM

Photo 2: Bob, K1REM

Photo 3: Will, KB1QMY

KON-TIKI
Thousands read the best-seller! Millions have seen and will see the thrilling movie!

SW-54
\$49⁹⁵

by the makers of professional radio
equipment for the

greatest adventure of our time!

Despite 101 days of salt spray and even total immersion, a National transmitter and receiver kept the world-famed Kon-Tiki Expedition in touch with the world! Now the same rugged dependability is yours in the amazing SW-54, the "Mighty Midget" broadcast and shortwave receiver (540 kcs. to 30 mcs.). Measures only 11" x 7" x 7". Write for details and name of nearest supplier!



PHI NEWSLETTER STAFF

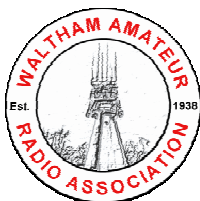
EDITOR - Mark Bolls **K1KGG**

DISTRIBUTION - Eliot Mayer **W1MJ**

Submit all articles to k1kgg@yahoo.com

Thank you to all who have contributed to this issue of PHI. We greatly appreciate the time you took in sharing your knowledge! We are always looking for articles and new material to publish. Please send in your photos, announcements, story or short article (technical or not) at any time, for the next issue of PHI !





WALTHAM AMATEUR RADIO ASSOCIATION

www.wara64.org

MEMBERSHIP AND CHANGE OF ADDRESS 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. Your membership dues help support these repeater expenses, as well as help to keep you informed about club activities and other aspects of ham radio. Individual membership is \$20 annually. Family membership (members all in same household) is \$30.00 annually. If you cannot afford the annual dues, please send what you can. If you are inclined to donate more, we will put it to good use. You can join or renew at www.wara64.org/membership.htm or complete this form legibly, and return it to:

Waltham Amateur Radio Association, PO Box 411, Waltham, MA 02454

Member 1:

Name _____ Call Sign _____

Street _____

City _____ State _____ Zip _____

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

Email (for newsletter) _____

Member 2:

Name _____ Call Sign _____

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

Relationship to Member 1: _____

Email (for newsletter) _____

For additional family members please attach their information to this form

Payment Enclosed:

☐ Individual Membership for _____ year(s) @ \$20/year nominal: \$ _____

☐ Family membership for _____ year(s) @ \$30/year nominal: \$ _____

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