



DIGITAL DISPATCH

A publication of the
West River Radio Club



July/August — 2008

Volume III—#6 & #7

VITAL STATISTICS

The West River Radio Club, an ARRL Special Service Club, was founded in 2004 through the efforts of KA1ZQX, Tim Bell, and N1JSG, Richard Pierce.

Our 50 members pride themselves on belonging to an active and productive organization with involvement in many aspects of this great hobby: public service, special events, Field Day, repeaters, emergency communications, contesting and chasing DX.

Current officers are:

N1TOX, John Borichevsky; President
W1CWB, Chas Baker; VP
KD6MPY, Sean Sanderson; ED/VE Liaison
K1KU, Darrel Daley; Secretary/Treasurer
KA1ZQX, Tim Bell; Public Relations/ARES

PRESIDENT'S CORNER

So, who is your Elmer?

President's note: This article is only to make you aware of some of the hidden talents of members of our club. This not an article to make one more known than he or she is, but to let you know of some folks who are ready to help you resolve a problem you might have.

So you have a question and you need to ask an expert. Who do you turn to? Well, the West River Radio Club has many folks who are specialist in many fields. From car repair, antenna placement, radio interference problems, electrical assistance (tubes, solid state, or home) and many more topics. One need not worry.

Tim, KA1ZQX; We have to salute Tim and thank him for his time over in that large sand pit. I know he is adjusting to home life again, but a real team leader in EmComm work here in the club. Tim has some great mechanical skills as he works on heavy equipment. You know, ones that throw a

punch! I turn to Tim for guidance with strategic ideas for a successful operation and deployment. Remember, Tim, along with Richard, N1JSG, founded this wonderful club.

Speaking about Richard; He has been the rock with the March of Dimes walks for the past 19 years! Yes the MOD organization has changed, but Richard keeps tabs on all the changes.

Darrel, K1KU - What can I say, the king (Ed: Well, maybe a Prince.) of CW, operating standards, antennas, and one liners! He is the editor of this newsletter, and knows a good radio when he sees one. Ask him about his new baby when you see him next.

Jack, N1HOS, is the master of the Icom-706. He is always tweaking the 706's to it best settings wherever he goes.

Chas, W1CWB, is an electronic circuit wizard. If you ever need a person to help you understand circuits and how they work, he is a *go to* person. He can also shoot a mean antenna line over a tree too!! Make sure you wear a hard hat!!

Sean, KD6MPY, is our Tube Specialist. If you are into tube rigs, he is your *go to* person for assistance. A Heath Kit enthusiast at heart, he can make them transmit with the best, no matter how old they are, it will be like new.

Gaila, KB1OQG, is a massage therapist who will help you relax. Gaila also has training to work with the American Red Cross, so she is no stranger to emergency situations. Her talents came out during a CERT training event we had.

Mark, KB1HCG, is an antique car buff. While being a trained mechanic and electrician, he can assist you with your car or electrical needs. He also climbs towers!



Gordon, W2NH, the wearer of many hats. From repeaters, airplanes, telephones, sound equipment, antennas, and so

many more talents, his history holds more stories than the internet can hold. See his article in this edition of the Digital Dispatch about the first linked repeater system. This folks is history worth preserving!

David, N1ESK, is the person who brings the old ideas, along with the new ideas, to the club to make them a reality. During this Field Day he was going to show folks an old technology in amateur radio by using SSTV of the pyro team setting off the fireworks in Vernon. Ok, SSTV is still used, but I have never seen it in use. Then it rained and that made the fireworks, well, history.... David has many more hidden talents and remedies there for the asking.

If you have a talent that is hidden and would like to share it, please let me know. It would be great to share these talents with others. Or better yet, write a short bio about yourself and have it published in the "Digital Dispatch". There are free prizes to be had here folks!

So as of this writing, these are just a few of the over 50 members we have in the club ready to assist you with your questions. We sure have many more people who have great hidden talents to explore. Who knows, they probably will come up in another episode of "So, who is your Elmer?"

Until Next month,

73

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de N1TOX

John Borichevsky – President WRRC



Announcing the ARRL New England Division Convention

The 2008 edition of the ARRL New England Division Convention, fondly known as **Boxboro**, will be held August 22 - 24, 2008. Mark your calendars now and plan to attend!

A great program is being planned. We are pleased to announce that the ARRL First Vice President **Kay Craigie**, N3KN will be in attendance. Here is your opportunity to meet Kay first hand at the ARRL Forums. She will be our guest of honor and keynote speaker at the Saturday evening banquet. Order your banquet tickets early as the seating is limited!

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We are also pleased to announce the return of QCWA President, **John Johnston** W3BE. John brings his 27 years of regulatory work with the FCC to bear in his ever popular talk "What the Rules Say".

The EMCOMM folks have been hard at work putting together a great line up with the support of the ARRL Emergency Preparedness and Response Manager, **Dennis Dura** K2DCD, Deputy Chief Army MARS **Jim Griffin** AAA9B and Chief of Army MARS Operations, **Grant Hays** AAA9O. We welcome their attendance.

The Special Event station **W1A** will be in operation. This is a good opportunity to operate the top shelf amateur radio equipment the industry has to offer and have fun while doing it!

Wouff Hong is back! We are glad to have them and you are not going to believe who they have tapped for the "Old Man". This is a must attend event!

The "**Call for Presenters**" remains open. Please contact WO1N if you have an Amateur Radio related presentation or represent an organization that would like to reach out to a large population of active Hams.

New to our committee this year is Prize Chairman, Mike Crestohl, W1RC. He's already lined up the new **Elecraft K3** for the top prize for some lucky ham.

Flea Market pricing has been restructured with the goal of improving the Sunday turnout.

Volunteers are also welcome to help with event planning and execution.

The latest updates, online ticketing and general information can be found at <http://www.boxboro.org>

The Boxboro Holiday Inn, located at the junction of Routes 111 and 495 in Massachusetts, will again open its doors to the Amateur Radio community with its spacious parking and comfortable accommodations. Hotel information is available through the Boxboro.org website. Room rates are reduced for this year, be sure to ask for the "Boxboro Ham Radio Convention Rate" when making your reservations.

We hope to see you there!



RUNNIN' ON EMPTY

Field Day #4

It's good that no one said that it couldn't be done, because we did it. Members of the WRRC have had all kinds of fun engaging in the most popular Ham Radio activity for four years running.



We've also shown our ability to establish emergency communications under less than ideal conditions by setting up antennas, stations, screen houses, engaging in combat against mosquitoes, consuming junk food and beverages.....and, above all, making contacts with all sorts of fellow Hams in the USA, Canada, and even some DX.

For our first three years (2005 through 2007) Ed, KB1KSR, and Lois Phoenix have been our gracious hosts at their lovely digs in Townshend, VT. Because of an invitation procured by David, N1ESK, we set up in Vernon, VT this year as part of their town wide celebration. It was our hope that this would allow a larger part of the public to see us in action and learn more about our great hobby.

It paid off in that respect as we had 36 participants and guests altogether – 6 more than last year.

Participants were as follows:

Operators:

KB1OQH, Paul Blais – Overnight operator
PJ Blais - youth
Megan Blais - youth
N1TOX, John Borichevsky
W1CWB, Chas Baker – Overnight operator
KB1J, Richard Austin – Overnight operator
KD6MPY, Sean Sanderson
WK1L, Frank Haggerty
K1KU, Darrel Daley

Assistance with setting up, tearing down and food providers:

PR by KA1ZQX, Tim Bell
N1ESK, David Andrews
KB1NXN, Emily Andrews
KB1NWU, Nathan Andrews
N1REB, Jeanette Andrews
KB1OQH, Paul Blais (Also our Chef of note)
PJ Blais
Megan Blais
Tina Blais
WB1CZA, Wil Shaffer
Mrs. Shaffer

N1TOX, John Borichevsky
W1CWB, Chas Baker
KB1J, Richard Austin
WK1L, Frank Haggerty
K1KU, Darrel Daley
Marion Daley
Tom Fox – Vernon Fire Chief...Grill and spare generator

I must confess that Murphy did show up. The club screen house collapsed during a torrential down pour on Saturday PM and the phone stations were moved into the Pond Road Chapel where operations continued unabated with the generator outside.

Other than that we all had fun in testing our communications skills under less than optimum conditions.

We'd love to see even more bodies on the scene next year. Plan ahead and mark off the last full weekend in June of 2009.

Stats: (For those of you who prefer a visual approach see the last page. John, N1TOX, has prepared some neat charts for your perusal.)

Phone QSOs—323

CW QSOs - 110

Digital QSOs – 3

Total QSO points = 1098

Total bonus points = 1090



(Ed.: Our thanks to W2NH, Gordon, for sharing some his early adventures with repeaters in this part of the world.)

Early Repeater Linking

It was a (no, not a dark and stormy night) a challenging request from Canada. Murray, the leader of the repeater forum for the annual ARRL meeting in Montreal wanted a link set up between New York City and the annual in Montreal. Could it be done? We didn't have any real links back then so a plan was devised using existing repeaters that could talk to each other. Part of the system existed. The link from LI to control Mt Beacon, W2GHR, was there and had been running for over ten years. It could make the repeater send on the input frequency of the Troy, NY, 94 repeater. Killington was also newly set up and could do all kinds of things with different PL tones. We needed a repeater between Killington and Montreal and the only one back then was Mt Mansfield, also on 34/94.

Now if I keyed Troy from Beacon with a PL tone it would pass the tone on to the 94 receiver at Killington and that station would retransmit that signal back out on 34 with the PL tone control. Sort of an upside down repeater. Mt Mansfield could be heard at the convention hall. Good! We have a link from LI to Montreal. To add even more, I set up a receiver to pick up the 82 repeater in Fords, NJ and piped it to Mt Beacon on the control channel. The Fords repeater could hear most of central New Jersey.

But how to get the return path? They set up a small repeater at Montreal to output on 34 and reach Mt Mansfield. Mt Mansfield only worked 34/94 so it would transmit on 94 without PL. Killington was set to take a 94 signal with no PL and send it on 28 (the usual input for Killington). Good but how to get back to Mt Beacon. K2SDP in the Schenectady area set up a receiver on 28 to retransmit on our original six meter input at Mt Beacon. That receiver at Beacon was connected full time to our third multiplex channel on 449.40 MHz that was monitored at the Long Island control point and could be patched to the Fords, NJ, repeater input.. Confusing? Not really but we now had a two way link between New Jersey and Montreal.

Certain things had to work correctly like the capture effect of FM so the Troy repeater would hear Mt Beacon while Killington was transmitting on the same input frequency. The control tones on the multiplex link kept a loop from forming around the lower part of the system. It worked.



But there was a fly in the ointment. Another ham on Long Island was planning to jam the system during the show by transmitting on the 220 link to Beacon from LI. We got wind of this and I found that I could hear my uplink 220 in front of his house so I knew he had that frequency pegged.

With that link jammed, the system would fail. I left the day before the show but before leaving I re-crystallized the up link transmitter to a new frequency (no coordination back then) and went to the main site at Beacon and changed the receive frequency and added the PL encoder for the 34 transmitter. Next stop was Killington to add the tone decoder on 94. Then on to Montreal. It was well after midnight on the show day when I got to Murray's house and crashed for several hours.

Time came for the repeater forum. We made tests earlier and it worked – with 7 squelch bursts in a row. We were very fortunate to have an unsuspecting mobile near Trenton call through the Fords repeater and we answered him from the convention. A simple task today with Echolink and other IP systems but a feat 41 years ago.

Gordon, W2NH



AUGUST EVENTS ES LOOKING AHEAD

Ongoing: WRRRC Net: Every Monday night at 19:30L on 147.015 w/a PL of 100

Ongoing: VT Emergency Phone Net: Every Sunday morning at 08:00L on 3.976 MHz.

August 2: Grace Cottage Hospital Fair Day. This is our annual special event station set up and chance to tell the public all about Ham Radio. Stop by and help out, operate, or just kibitz.

August 12: Regular scheduled meeting of the WRRRC—19:00L in the EMT room at Grace Cottage Hospital in Townshend, VT.

August 23-24: ARRL New England Division convention at Boxboro, MA. Anyone want to car pool?

August ??: Possible RACES drill this month. Stay tuned.



ROLL YOUR OWN

Well, that sort of goes back to the olden days when cowboys and others made their own cigarettes from scratch. I guess that some folks still roll their own today, but probably don't use tobacco. For a primarily Ham Radio publication a better term might be *Home Brewed*.

For our purposes today what I'll be discussing as a home brew possibility are QSL cards.

Why would you want to make your own anyway? I'm glad that you asked.

- You like to send/receive QSL cards but are not known to be a *Heavy Hitter*.
- You enjoy being creative.
- You tend to be frugal.
- Now and then you do a portable operation and don't wish to get commercially made cards for these rare occasions.

If you fit into any of these categories, or maybe even some I didn't mention rolling your own may be the way to go.

So even though I have all kinds of commercial cards there are times that I want to make my own. In the past I've been known to do some portable operating, such as lighthouse activations. There was also the summer that I, along with two other intrepid Hams, activated an island on Squam Lake (remember *On Golden Pond?*) for the US Islands on the air program.

Not to say that I haven't made more than a few contacts on some of these mini DXPeditions, but not really enough to justify visiting professional printer. I've had halfway decent results using Publisher and Word, but there is still a considerable amount of work involved and being a half-way proficient Geek is almost essential

Then I discovered a neat piece of software called *QSL Maker*. It's Windows based, is easy to use, and the biggest advantage of all is that it's FREE. WB8RCR, John McDonough, has done a bang up job on this tool. You can download your free copy at www.qsl.net/wb8rcr/hamradio.html

Before I turn you loose to get your copy and start being creative I'll cover but a few of the fine things John's software does for you.

- It accepts graphics
- It accepts any font and point size on your machine
- You can do as many or as few cards as you like. (If you choose the program's "4 cards to a page" option you won't waste any paper. Don't you just love being frugal?)
- You can enable or disable the "block" feature. The "block" allows you to enter by hand the call, date, time, mode, etc. If you like to use PC generated labels just disable the block feature.

Here's an added bonus. I disliked the idea of buying an entire ream of card stock at Staples, or anywhere else for that matter, in order to print just a few cards. So a Google search led me to www.hamstuff.com. W7NN has all kinds of neat stuff in his on line store. One product happens to be laser perforated card stock in small quantities for printing your newly created cards on. And he has color choices, no less. He'll even throw in some templates to use with the software.

If you try your hand at this I'd love to see a sample of your work. Just send your file to kl7dn@sover.net



AND THE WINNER IS

Carrying on in the great tradition of word smiths world wide, Jeanette, N1REB correctly defined last months word *atrabillious*. Congratulations.

In passing she mentioned that the submission of her definition also proved that she does read the newsletter. I congratulate her for that, too.

When one is atrabillious they are mean, bad-tempered and melancholy. They have a surly disposition. This surely doesn't describe anyone reading this journal.

Lets begin offering some radio terms. I'll probably get many definitions of *reflected power*. The first correct one will get the chance to see their name in print next month.



W1IRA, IRA

I can tell you that I got my start in radio from my dad who always wanted to do something in science and engineering but instead spent his life sewing shoes together and eventually doing some shoe designing. My dad used to work long hours in a sweatshop shoe factory in lower Manhattan. He would sometimes walk through the Cortlandt street area where there were a dozen or so electronic flea market shops crammed with electronic parts, test equipment, even used broadcast transmitters! This was many decades prior to the construction of the World Trade Center which obliterated that neighborhood and drove the electronic flea markets out of business.

Anyhow, my dad came home one day in 1955 with a surprise for my birthday, a one transistor radio kit. It used maybe a Raytheon CK722 transistor and a 1N34 diode and a nice air variable capacitor and hand wound coil. The rest, as they say, is history.

Ira

QUOTE OF THE MONTH

To be good is noble.
To tell others how to be good is even nobler.
And a lot easier. – Mark Twain

SDR

(Ed: Don't feel bad. I didn't know what SDR stood for either. After reading the contribution below from K1TEZ, BJ, though, you'll also be *in the know*. Thanks, BJ.)

Check out the article on the ARRL web page about WebSDR (software defined radio on the web). There's a link to a SDR on a page at a Dutch University web site <http://websdr.ewi.utwente.nl:8901/>. You can listen to the radio on 80, 40 and 20 m. You select what frequency, mode bandpass filter, etc.

I just listened to someone speaking French on 3618 LSB. It should be possible to listen for *MY* signal to hear what it sounds like in Holland! It's fun to play with and could be useful, especially for checking on your xmit performance (compression) or figuring out why the European station doesn't seem to hear you. You might be able to hear the other US QRM that is blocking you!



FINANCES

The data below is valid as of the publication of this issue of the Digital Dispatch

42 Full members—8 Associate members
54.76% of the full members belong to the ARRL

Checking	\$1431.26
Cash on hand	\$35.10
Total	\$1466.36

54.76% of the full members belong to the ARRL

SITE OF THE MONTH

THE COURAGE HANDIHAM SYSTEM

You can find out all about it at www.handiham.org.

This is an excellent organization in Golden Valley, MN that devotes itself to helping handicapped folks become Hams. Or, if already Hams, it assists them in upgrading and/or furthering their communications skills with classes and/or modified rigs, computer software, etc.

The group both develops or assists disabled Hams with the technological know how and equipment to make their enjoyment of this wonderful hobby more beneficial and enjoyable. This might involve specialized computer software or modified gear for those in need.

There are nets available via EchoLink, summer camps, and classes.

Volunteers and/or donations are always needed. Some few years back I did a recording on cassette of a text for blind students. Advances in this technology now make talking into a microphone obsolete.

So check them out. You just might see some way that you can become involved in helping a handicapped fellow Ham with your volunteer services.

Below are some pictures out of the archives



W1ZS, Burt and Marion
Tim's dinner—January, 2006



KD6MPY, Sean—AA1T, Grant
2004 Annual Meeting

CERT and the COWS

On Saturday, June 7 the following WRC members put on their CERT hats to help once more with controlling the parking situation at the Brattleboro Retreat during the *Strolling of the Heifers*.

KA1ZQX, Tim KB1HCG, Mark,
KB1OQG, Gaila W1IRA, Ira
W1CWB, Chas

Reliable sources present on the scene tell me that four lost children were found by members of the CERT team. Many folks were also provided with quality directions.

Rescue, Inc, as well as the Brattleboro Police Department took note of our presence and the ability of CERT members to provide assistance in many ways.



Morse Code and MARS

After more than a dozen years, Morse code will soon be returning to Military Affiliate Radio System (MARS) nets. In the mid-1990s, the Department of Defense (DOD) did away with CW operation across the board - including MARS nets - as automatic systems such as the Internet, SATCOM, cell phones and e-mail became available and the payroll cost of manual operators escalated.

MARS members who had embraced CW operation knew that Morse code, the most "digital" mode of all, was an important tool for Emergency Communications. After Hurricane Katrina demonstrated the need for more robust - not to mention quickly deployable EmComm resources - some MARS members led a campaign to resume CW operations on their nets. This resulted in the Chiefs of Army MARS and Navy-Marine Corps MARS calling for a census of interested MARS members as the first step to reactivating regular training nets.

Army MARS Chief Stu Carter told his members last October, "We are pushing for the Department of Defense to use CW again." He designated CW veteran Grant Hays, WB6OTS - Operations Chief for Army MARS at its Fort Huachuca, Arizona headquarters - to coordinate the effort. Like many hams who are skilled at Morse code, Hays, an ARRL Life Member and active ARES/RACES participant in Arizona, has taken a leading role in introducing new technology such

as WinLink.

Army MARS launched a limited test of CW nets in four Midwestern states in late 2007. During a DOD interoperability test this past March, a Transportation Security Administration (TSA) station used it to communicate with Ft Huachuca.

In announcing the return of CW to MARS nets, Navy-Marine Corps MARS Chief Bo Lindfors cited an emergency where CW was sorely missed: "I remember the [1998] Northeast Ice Storm shortly after I became [Navy-Marine Corps MARS] Chief and the unnecessarily lengthy effort by all of southern New England to receive one voice EEI [Essential Elements of Information Report] from a northern New England member whose antenna was covered in ice and lying on the ground. It took more than an hour when CW could have handled it in a few minutes. As more and more of our members enter MARS with no Morse code experience, I am afraid that we will soon lose that skill set if we don't do something."

Army MARS Chief Carter said the imminent return of CW will not replace modes such as WinLink, Pactor 3 and MT63. "Our CW nets will focus on maintenance of skills and will necessarily be limited by the shortage of available frequencies and trained members," he said. "But if members want to add CW to their skills, the nets will be available for training."

MARS's primary mission is providing auxiliary communications to the US Military and emergency communications to such national agencies as FEMA and the Department of Homeland Security. MARS is also available to assist state and local emergency response agencies, and public and select private agencies such as the Red Cross. On a day-to-day basis, MARS members are available to handle messages to and from servicemen and women on active duty, in the reserve or guard, or retired, as well as certain employees of the federal government who are stationed outside the US. The three MARS programs - Army MARS, Air Force MARS and Navy-Marine Corps MARS - consist of a volunteer force of more than 5000 skilled Amateur Radio operators.

CUL es 73 de K1KU SK



FIELD DAY RESULTS—PAST AND PRESENT

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
80 M CW	1	7	46	15
80 M SSB	5	73	128	52
40 M CW	63	60	90	30
40 M SSB	7	42	44	85
40 M Digital			5	5
20 M CW	63	25	40	58
20 M SSB	38	67	11	152
20 M Digital			2	
15 M CW		11		7
15 M SSB		1		34
Other			3	2
Total	177	286	369	440
Operators	5	8	11	9
Visitors	14	18	20	19
Dinner	9	11	16	18

