



# DIGITAL DISPATCH

A publication of the  
West River Radio Club



June—2011

Volume VIII—#VI

## 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 47 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

KB1J, Rich Austin; VP

KD6MPY, Sean Sanderson/WK1L, Bro Frank Hagerty ED/  
VE Liaison

K1KU, Darrel Daley; Secretary/Treasurer

KA1ZQX, Tim Bell; Public Relations/ARES

## PREZ KORNER

### Drills and Events

As with many amateur radio clubs around the world, we are not only amateur radio operators, we also participate in Emergency Communication drills, public events and respond to all hazard events. Many of our WRRC members participated in the Entergy Vermont Yankee Drills this year. Again, this is one of our strengths as we deploy as a team and step up to the plate by performing to the best of our abilities.

Many of our drills are not, how we shall say, "standard". During each drill, we always remain flexible and understand that radio communications can change at a moment's notice for a few minutes, hours, or even days, especially HF. Atmospheric conditions, solar activity, rain, leaves, ice or whatever can change communications upside down and we adapt to the changes. This was evident during our last drill. With the positive changes of the Newfane 444.700 repeater by the Northeast FM Repeater Association and the updates to the Marlboro 147.015 repeater by Allan McLane - N1HWI prior to the drill, our ability to listen to the events have changed. Both repeater upgrades increased the coverage in the local areas increasing our abilities to get the message to the effected areas. But we also utilized the Leyden, MA 146.985 repeater prior to the graded exercise. So we were able to flex our abilities by using any means necessary to deliver the messages.

So where do we go from here? Well, the new VEM Radio Room should be operational by August. We will have new

radios, antennas, and many more amenities too numerous to mention. The VEM Communications Trailer was utilized during the last drill. Yet here is another great milestone which is now in place for us to use.

So what's on the plate for WRRC in the next month?

June 11 - Girl's on the Run 5k in Brattleboro

June 14 - WRRC Monthly meeting at GCH

June 25 - 26 - Field Day 2011

To all the members who have worked hard over the years for making the radio club wonderful, Thank You! Thanks for all of your efforts on planning the events, installing antennas, programming radios, repeater maintenance, being a team member, setting up and tearing down events, and just being there. I know there are many other things that we could list from our education team, the compliance team, our 501-C-3 team, the VT QSO Party team, NWS Skywarn members, the Field Day Team and many more. Everyone makes this club work because we are a rock solid team. Yes, there are some slip ups from time to time, but that goes with anything.

So as we get into the summer time events, keep the grills cookin' and an eye on the sky. Enjoy the summer and take a radio with you.

Until next month!

73

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de N1TOX

John Borichevsky - President WRRC



## THE WRRC ARES NET

**WHEN:** Every Monday evening at 19:30L

**WHERE:** The Marlboro Repeater—147.015 MHz.

Positive offset and a 100 Hz PL

**WHAT:** The net varies between rag chewing on some Mondays and a bit of training on others. Often there is a combination of some training and rag chewing.

All are welcome and encouraged to check in.

You'll get in some rag chew time with a little training thrown in now and then.

Want to be a Net Control Station? Contact KA1ZQX, Tim at [ka1zqx@arrl.net](mailto:ka1zqx@arrl.net)

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## QUOTE OF THE MONTH

“My neighbor knocked on my door at 2:30am this morning, can you believe that..... 2:30am?! Luckily for him I was still up playing my Bagpipes.”  
Henny Youngman

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## HAPPY BIRTHDAY

**H**appy birthday wishes for the month of June go out to:  
June 14—KK4ADQ, Andy  
June 22—KB1MUF, Peter  
June 24—K1KU, Darrel  
June 28—W1IRA, Ira

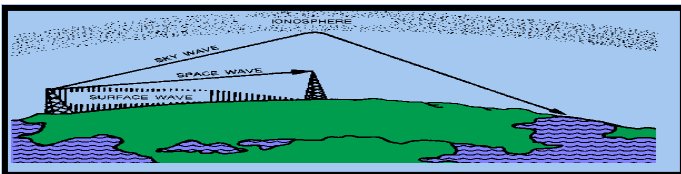


## FINANCES

**T**he data below is valid as of the publication of this issue of the Digital Dispatch

44 Full members—3 Associate members  
60% of the full members belong to the ARRL

Checking = \$1,812.28/Cash on hand = \$59.87



## RUNNIN' ON EMPTY

*Great Events in June (For your convenience the most significant events have been highlighted.)*

- ♦ June 4, 1942 – Battle of Midway began
- ♦ June 6, 1844 – YMCA organized in London
- ♦ June 6, 1944 – D-Day Allied Forces landed in Normandy
- ♦ June 12, 1898 – Declaration of Philippine Independence
- ♦ June 14, 1777 – Flag Day: US Continental Congress adapted the flag
- ♦ June 15, 1215 – King John of England signed Magna Charta
- ♦ June 15, 1775 – George Washington, appointed Commander-in-Chief of the Continental Army
- ♦ June 17, 1775 – Battle of Bunker Hill
- ♦ June 18, 1812 – US Congress declared war on Great Britain
- ♦ June 18, 1815 – Allies defeated Napoleon at Waterloo
- ♦ June 20, 1837 – Victoria became queen of Great Britain
- ♦ **June 24, 1936 – Darrel Daley, AKA K1KU, was born in Porterville, CA in the home of his parent's, Leonard and Helen Daley. A plaque on the home and a statue in the town square to celebrate said birth are planned by the town council.**

- ♦ June 25, 1950 – North Korea invaded South Korea – beginning of Korean War
- ♦ **June 25 & 26, 2011: The West River Radio Club will hold its Field Day operations at the home of Ed, KB1KSR, and Lois Phoenix and Gaila Gulack, KB1OQG, in Townshend, VT**
- ♦ June 26, 1945 – United Nations Charter signed by 50 nations
- ♦ June 28, 1914-Archduke Francis Ferdinand of Austria and his wife assassinated leading to World War I



Allow me to also add the WRRRC official field Day FAQ.

### When does FD take place?

\* The last full weekend in June. The operating time is from 14:00 Saturday, June 25 till 14:00L on Sunday, June 26. We will have three stations on the air simultaneously; one each for phone, digital, and CW. Help setting up is always appreciated at 14:00L on Friday, June 24. The same goes for tearing down and policing the area after we're through operating.

### Where does FD take place?

\* At the adjoining homes of KB1KSR, Ed and Lois Phoenix, and KB1OQG, Gaila Gulack.

### How many years has the WRRRC been participating in FD?

\* This will be our 7<sup>th</sup> year of activity.

### Do I have to notify anyone if I'm attending?

\* Only if you'll be joining us for the Saturday 18:00L pot-luck. Let Bro Frank, WK1L, ([hagertysse@myfairpoint.net](mailto:hagertysse@myfairpoint.net)) know that you'll be there and what you're bringing in the way of vittles. The club will provide burgers, hot dogs, etc. for the grill.

### Is FD fun? Yes it is, but only if you like to:

- \* Operate
- \* Eat good chow
- \* Associate with like minded Hams
- \* Set up temporary antennas and simulate emergency conditions

### Can Technicians take part in FD, and how?

- \* Yes they can. They do it by:
  - Assisting with setting up and/or tearing down
  - Watching experienced operators do their thing
  - Operating themselves with the assistance of a control op
  - Eat in such a manner that there will be no leftovers to take home

### How can I learn more?

- \* Attend the WRRRC general meeting on June 14 in the EMT room at Grace Cottage Hospital. We start at 19:00L
- \* Contact K1KU, Darrel at [k1ku@myfairpoint.net](mailto:k1ku@myfairpoint.net)

Ed note: Check out page #4 for KA1ZQX, Tim's take on Field Day.)



## UPCOMING EVENTS & LOOKING AHEAD

**Ongoing:** WRRRC ARES net...19:30L, 147.015, positive offset and 100 Hz PL tone.

**June 11:** GOTR

**June 14:** Monthly meeting of the WRRRC in the EMT room at Grace Cottage Hospital. The meeting begins at 19:00L

**June 25—26:** Field Day. Read the article in this issue.

**July 12:** Monthly meeting of the WRRRC in the EMT room at Grace Cottage Hospital. The meeting begins at 19:00L

Also check out WRRRC events on the club calendar at <http://www.westriverradio.org/> and scroll down the page a bit.

## FOR SALE

LDG AT-11MP auto tuner with remote control unit and cabling for ICOM radios, IC-706, IC-7000, etc. Also, power cord with Anderson Powerpoles. You can probably buy or make up cables for Yaesu or Kenwood rigs.

\$100 firm. Contact Darrel, K1KU—[k1ku@myfairpoint.net](mailto:k1ku@myfairpoint.net)



Mine comes with the cover.



## VY DRILL

**O**n April 5 the following RACES members honed their operating skills and fulfilled their volunteer obligations to the citizens of Vermont. Thanks to all concerned for their efforts.

Darrel Daley - K1KU  
 Bro. Frank Hagerty - WK1L  
 Chas Baker - W1CWB  
 Tim Bell - KA1ZQX  
 Mark Karcum - KB1HCG  
 Jenifer Ambler - KA1CYZ  
 Chuck Wojack - K1EGL  
 John Borichevsky - N1TOX  
 Roger Grosser - W1ROG  
 Gerry Ashton - WY2Y  
 Gaila Gulack - KB1OQG  
 Gordon Pugh - W2NH  
 Jack Adams - N1HOS  
 Robin Conway - N1WWW  
 John Gladding - N1HLG

And on May 2 this group met again to continue hon-

ing their operating skills and fulfilling their volunteer obligations to the citizens of Vermont.

Darrel Daley - K1KU  
 Bro. Frank Hagerty - WK1L  
 Chas Baker - W1CWB  
 Tim Bell - KA1ZQX  
 Mark Karcum - KB1HCG  
 Jenifer Ambler - KA1CYZ  
 Chuck Wojack - K1EGL  
 John Borichevsky - N1TOX  
 Roger Grosser - W1ROG  
 Gerry Ashton - WY2Y  
 Jack Adams - N1HOS  
 Paul Blais - KB1OQH  
 Robin Conway - N1WWW  
 John Gladding - N1HLG  
 David Santamore - KB1ORS  
 Allan McLane - N1HWI

The pictures below were taken at the Marlboro EOC by Andy Hall, KB1OVJ.



KA1ZQX, Tim, delivers traffic from VEM



N1HWI, Alan KA1ZQX, Tim State Radio Op

## SITE OF THE MONTH

**I** received this link from a friend and Ham, namely, Norm Dias, W1UHY, AKA the "underhanded Yankee."

It might be worthwhile to print it out for a handy reference for those without any or not much soldering experience as well as those who may have had a long break from using a soldering tool and need a refresher course.

It even has pictures for those of us who prefer the visual approach to learning. Translated, that could mean that we don't read none too good.

[http://mightyohm.com/files/soldercomic/FullSolderComic\\_20110409.pdf](http://mightyohm.com/files/soldercomic/FullSolderComic_20110409.pdf)



## Field Day "Why should I participate?"

By Tim Bell, KA1ZQX

Over the years I have participated in many field days. I have been a guest at some and have been one of the main organizers at many more. I have heard both sides from "why should I participate?" or "why should I bother?". Well, one of the biggest reasons I participate is that I have a lot of fun and the comradry is even more fun.

Over the years I have lost a lot of Morse code speed. This exercise helps me to brush up on this part of the hobby that I normally don't have time to do at home. I have 24 hours of unlimited play time to accomplish this. You may say I don't do Morse? Well, we have plans for phone, digital, & someone may even dabble in satellite. You may say I am not interested in any of these, but may see the fun in part of the hobby by seeing a demonstration.

So what is the real reason we do field day? The number one reason is to test our capabilities by setting up in a challenging environment and running on emergency power. The part which is a lot of fun also is that we try and make as many contacts we can in that 24 hour period. This part of it can seem like a contest, but tests how well we did with our set-up and how well we can adjust to the changing conditions that mother nature throws at us each year.

We would invite you, your friends, and anyone interested in what we do to come out this year and participate. If you can only come for an hour, a couple or prepared for the whole time, you won't be disappointed. We plan to have plenty of fun, food, and "good weather" this year.

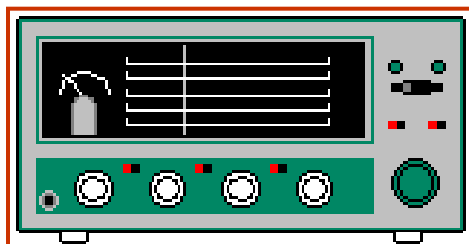
Until then, 73.



### NEARFEST 2011

My non professional team of journalists was on the ground for this stupendous event. Because they're NON PROFESSIONAL they managed to lose the list of WRRRC members encountered. I retaliated and they have joined the ranks of the unemployed.

Fortunately they had one shot left on the roll in their Kodak Brownie and passed it on to me. Preserved for posterity in that one picture is a guest at the table manned by W1CWB, Chas, and K1KU, Darrel. That guest was a longtime Ham friend of your editor. K1GE, Glenn.



K1GE, Glenn, and W1CWB, Chas, look over a table filled with nothing but valuable treasures.

This might be a good time to remind you that the fall event will be held on October 14 -15 at Deerfield Fairgrounds in Deerfield, NH. There are two Deerfields in NH so make sure you set your GPS for the right one.

Details can always be found at <http://www.nearfest.com/>

Let's close off with some shots from a GOTR event from yester year. Let John, N1TOX, know if you'd like to help on with the 2011 run on June 11.



KB1OQH, Paul  
W1CWB, Chas



W1ZS, Burt  
KB1OQH, Paul  
KB1HCG, Mark  
N1TOX, John

CUL es 73 de K1KU SK



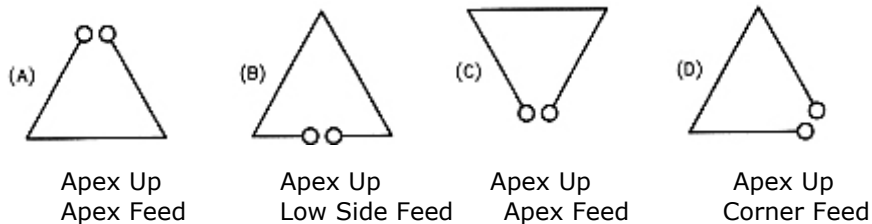
There's more to come. Flip the page for a great antenna article by WK1L, Frank, the Antenna Man.

**Full-Wavelength Loop Antennas**  
Bro. Frank Hagerty, S.S.E. WK1L

**H**ere is a class of antenna that is cheap, easy to build, and has more gain and lower noise than a dipole: **the Full-Wavelength Loop**. It consists of a length of wire about a wavelength long (or maybe a whisker longer) that is oriented in one of three configurations: horizontal (parallel to the ground), vertical, or sloping. What all configurations share is the fact that the greater the included area within the loop, the greater the efficiency of the antenna. The greatest included area will be with a circle, so the more support points for the wire you have, the greater the efficiency and gain. But suspending a wire antenna that is perfectly circular is a challenge—you would need an infinite number of supports to keep the true circular shape; so most people compromise by setting up the loop as a square or as a triangle. If the shape is a triangle, the design is known as a Delta Loop (from the Greek letter Δ, or “delta.” In the **horizontal configuration**, it is called a Loop Skywire, and it has omnidirectional coverage. The **vertical configuration** will be bi-directional, broadside to the antenna, and the **sloping configuration** will tend to radiate more in the direction of the slope.

This month, I will focus on the vertical and sloping **Delta Loop** (I will look at the Loop Skywire in the next issue of the *Digital Dispatch*) One BIG advantage of the Delta Loop is that, in the Apex Up configuration, it needs only one high “skyhook,” or point of support. And that point of support does not have to be really high for the antenna to be effective.

Here are the possible configurations for a vertical Delta Loop:



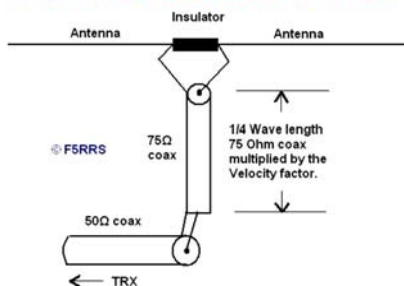
Con-fig.	Polarization	Radiation Angle
A	Horizontal	Moderately High
B	Horizontal	High
C	Horizontal	Moderately High
D	Vertical	Low

(Source: [http://www.w5sdc.net/delta\\_loop\\_for\\_hf.htm](http://www.w5sdc.net/delta_loop_for_hf.htm)) ▲

As you can see, the configuration with the lowest radiation angle (good for DX) is “D”—Apex Up, Corner Feed. It gives your signal vertical polarization; but after one hop, polarization of HF signals doesn’t matter. To calculate the **length of wire** for the loop:

Length in feet = 1005 / f in MHz	Or	Length in meters = 299.8 / f in MHz x 1.05
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**FULL WAVE DELTA LOOP ANTENNA**



Although articles about Delta Loops sometimes recommend using a 4:1 balun at the feed point, that would be more suitable for matching an antenna that has a 200 Ω impedance to 50 Ω coax. The Feed Impedance of a Delta Loop is typically between 90 and 120 Ω. A better match can be had by using a ¼ λ section of 75 Ω coax between the antenna feed point and 50 Ω coax feed line: This could be easily accomplished by using a PL-259 connector on the end of the 75 Ω coax connected by a barrel connector to the 50 Ω coax. Waterproof all connections well. As we saw previously with the NVIS antenna, coiling the feed line into a choke balun will prevent common-mode radiation going back down the feed line toward the radio.

Give the Delta Loop a try!

Source: [http://f5rrs.pagesperso-orange.fr/eq\\_delta-loop\\_75ohm.html](http://f5rrs.pagesperso-orange.fr/eq_delta-loop_75ohm.html)