



# DIGITAL DISPATCH

A publication of the  
West River Radio Club



November—2011

Volume XI—#VIII

## 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 48 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

## THE PRESIDENT'S KORNER

*It's time to.....*

**...Remember the past.** This past year has been one for the records for all Vermonters. From the record snow falls this past winter, a spring melt off that just would not stop - Lake Champlain well over flood stage, the Brook's House fire in Brattleboro, Tropical Storm Irene and the thoughts of Space Junk which was out of control. Every corner of Vermont was affected and nobody was spared. Some people got hit worse than others while some were very lucky. And now, a foot or more of snow prior to Halloween.

**..March forward.** As we all know, the West River Radio Club is a well-rounded group of individuals who work well together and help one another when they have a problem. As we all look toward the future, I have been currently notified that the Northeast FM Repeater Association has made some great improvements to the Newfane Hill Repeater, with a few more to come. Check out the 2 meter repeater as it is back on line. We also hosted the Vermont QSO Party for 2 years and now have the makings of Worked All Vermont 251 (WAVT251). This is a new contest we are currently writing the rules for as I type.

**..Carry on.** We have been able to assist more towns and villages this year with Emergency Communications than in prior years, and even more towns are currently in place for next year. As this year has been filled with disasters, way too many in my opinion, our experiences and

dedication is spreading from town to town. This is not only by word of mouth, but observations from key people as we do the right things to get the job done and exceeding the officials' expectations. Some of these ideas have impressed me also! It is my hope that we will continue to press forward and maintain the high level of service we have been providing for Windham County and beyond for many years to come. We have put our club on the map year after year, and I know we will "Carry on" for years to come.

**..Step Aside.** As we proceed to our next club year of 2012, I see that I have led this stellar group for the past 7 years (since 2005). At this time I would like to "step aside" and allow someone else to carry the torch. We have a lot of talented folks who can run the club. Maybe one might not think he or she can do it, but you can. I will not mislead you as it does take extra time out of your monthly routine to keep things running. There is no doubt about that. I can hear you now, I don't have any spare time. Well, I say you do. Planning meeting topics (which are done by the group at the November meeting), orchestrating annual events, starting every meeting with current and evolving information for everyone to know about, writing the *Prez Korner* for the *WRRR Digital Dispatch* and being the point of contact for the world to know more about this great club and our progress.

As we proceed forward I know the West River Radio Club will carry on without fail. As I plan to join the Past President's Club, I will be there providing the assistance I have done in the past, work closely with you, our members, and look forward to seeing everyone at every meeting in the future.

So until next month,  
73

.....  
de N1TOX

John Borichevsky - President WRRR



## UPCOMING EVENTS & LOOKING AHEAD

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

**November 8:** Monthly meeting of the WRRRC in the EMT room at Grace Cottage Hospital. Darrel, K1KU, will give a PowerPoint talk on LoTW and logging software.

**November 24:** May all of our members and their families have a great one. After all, we all have a lot to be thankful for.

**November 26:** There will be no monthly luncheon meeting at the Panasian Restaurant because of the Thanksgiving Holiday.

**Annual Meeting:** Saturday, Dec 10 at 11?? At Grace Cottage Memorial Hospital

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

## FINANCES

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

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

Checking = \$1,674.96/Cash on hand = \$66.57

## VY4VT

I'll bet that you've seen those lawn signs around Windham County. That acronym stands for *Vermont Yankee for Vermont*. Sometimes I feel that there are only 10-20 people in the area that want to see VY stay open. My wife and I happen to be two of them, and because somebody in semi high places was aware of our feelings about nuclear power we were invited to participate in a rally to support the plant and workers there.

It happens that the plant is currently in shut down mode so a rally was planned for Sunday, October 23 from 4:30 to 6:30 PM. This is the time of the shift change for shutdown workers and our purpose was be at the entry with supportive signs, smiles, waves, and thumbs up to let them know that some folks in the area supported their efforts. This particular Sunday was also chosen because the anti-nuke forces were to be present on October 30. Maybe they were afraid of pros & cons would create a rumble. Remember the musical *West Side Story*?

Another supporter present was Gaila, KB1OQG who was there along with her friend from Boston, ???. Gaila was not only there but had a professional video camera to record the event and interview a few

of the attendees. Even now I can see Gaila's name in the credits for an upcoming documentary.

The other surprise is that our loyal member from up north, Steve, N1EQP, is working there during the shutdown. I know that he appreciated the IBEW signs that Marion and I were holding.

To the best of my knowledge this is the first rally that my wife and I have ever attended. I can see some big benefits. Inside the Governor Hunt building a semi feast was laid out consisting of the makings for great deli sandwiches, soup and beverages. Now that's my kind of rally



KB1OQG, Gaila, and Dana Krueger

Darrel—K1KU



MAY YOUR THANKSGIVING HOLIDAY BE A BOUNTIFUL ONE



THE

## Collinear Antenna Arrays

Bro. Frank Hagerty, S.S.E. WK1L

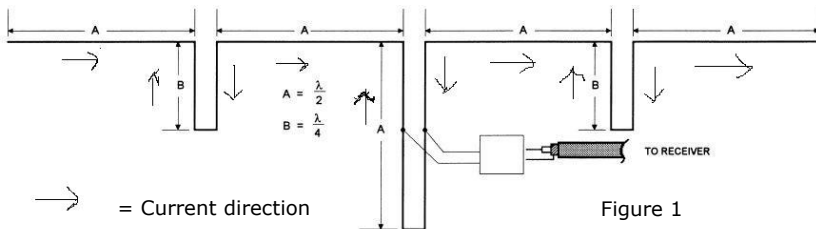
This month, rather than featuring a particular antenna design that you can build at home, I'd like to dabble a bit in antenna theory and feature a design technique that is used to increase antenna gain. I think of increasing the gain of an antenna as a "poor man's amplifier." That is, the power output of your transceiver seems to be increased by the way the antenna itself works.

One common technique is to build a *directional antenna*, focusing the power in one or more directions—and not sending RF energy in other directions. Yagis and quads are a good examples of directional antennas, using *parallel* multiple elements to narrowly aim the RF energy in one direction.

We can also increase gain by reinforcing the pattern of radiation by using multiple elements end-to-end *in phase*: a *collinear antenna*. The 20th Edition of the *ARRL Antenna Book* says, "The term *phase* has the same meaning when used with the currents flowing in antenna elements as it does in ordinary circuit work. For example, two currents are in phase when they reach their maximum values, flowing in the same direction, at the same instant. The direction of current flow depends on the way in which power is applied to the element." (p. 8-3)

Collinear arrays are always operated with the elements *in phase*. **Fig. 1** is an example of a 4-element collinear array with four  $\lambda/2$  elements with  $\lambda/4$  phasing stubs. As you can see, in all four elements the current is flowing in the same direction at the same instant.

The simplest form of a collinear antenna is 2 half-waves in phase.



Here is link to a design page in Excel: <http://kk1cw.tripod.com/wire2elantenna2m.zip> Many of the vertical antennas we use for VHF and UHF that exhibit gain over a  $\lambda/4$  vertical antenna are collinear arrays. The J-Pole is an example of a vertical collinear antenna; and the Super-J would be an example of a vertical with phasing stubs both at the bottom of the antenna and between the elements. Here's a link for the Super-J:

<http://www.hamuniverse.com/superjpolecal.html> Most antennas used for VHF and UHF repeaters use collinear principles to obtain gain. Here is a link to the installation of a large commercially produced antenna for a 2 meter repeater using collinear folded dipoles:

<http://wadsworthsales.com/kb9icomprodrepeaterantenna.aspx>

Antennas can be made combining parallel and collinear elements, too; the Lazy-H is a good example:

<http://kk1cw.tripod.com/wirecolinealazyh.zip>

There are lots of other designs, too, that use collinear elements in their designs; but all of them count on this principle to increase the gain of the antenna.

## THE OTHER PUTNEY HAM

Actually, there are several others residing in the Greater Metropolitan Putney area;

\* WK1L, Bro Frank

\* KB1RHA, Tom

\* KA1WTS, Hank

\* W1IRA, Ira

\* K1KU, Darrel

\*KA1ETQ, Carl – He was one of the first Hams I met when we moved here full time in 1983. What a location on top of Putney Mountain.

\* WA1EDI, Joe – OK, Joe lives in Dummerston, but he has a Putney zip code. I've known Joe since 1983, too, when I started checking into the Green Mountain Net.

And for those who are on the verge of emailing me with the information that there are even more Hams in Putney, well, don't bother. I know that there are.

There are many more, 19 total, at least according to QRZ.COM.

And then there is the entrepreneur among us, KB1VGJ, Bert. I thought that it would be nice to give Bert a plug as he is a successful graduate of our last Technician class that was held at the Red Cross offices in Brattleboro.

It appears that he might be serious about enjoying our great hobby. Many new Hams seem to fall by the wayside, but Bert has acquired a 2 meter rig and even has a 40' tower waiting to be erected.

Marion and I probably see Bert more often than many of you as he is the owner, manager, and chief chef at Bert's Chuck Wagon in beautiful downtown Putney. The Chuck Wagon is located directly across from People's Bank on Route #5 (AKA Main Street) as well as the Putney Credit Union. A good location as this way he can get the trade from the many rich elite citizens of Putney after they have completed their banking business.

As two of those rich elites Marion and I often stop by on a weekend. While I'm getting in my obligatory aerobic walk on the back roads for the village (not too much fear of being mugged there) Marion enjoys a snack and beverage. Upon the completion of my power amble I am in desperate need of nourishment and also avail myself of the Chuck Wagon's varied menu.

I said *entrepreneur* above because KB1VGJ is definitely that. Due to the severity of New England winters the Chuck Wagon must close its doors at the end of October each year. In order to keep the wolf from the door Bert

prays for lots of snow each winter so that he can keep his truck and attached plow exercised by keeping a lot of local driveways clear. He also owns a self-storage facility further north in Putney on Route #5.



So, hats off to one of our newest members. If you're driving through our burg next spring/summer stop on in and sample some of the Chuck Wagon's culinary delights. On our last visit we chatted with folks from Springfield, MA who come up every year for some of his burgers and order more to take home – the best they've ever had they told us.

---

## ROBERT GALVIN Dies at 89

(Ed: Thanks to Gordon, W2NH, for providing me with the NY Times obituary)

**I** know Gordon, you say, but who in the heck was Robert Galvin? To be honest, I didn't either, until I received Gordon's email. Mr. Gavin passed away on October 12, 2011 at the ripe old age of 89.

As an entrepreneur Robert Gavin beat Steve Jobs to the punch by a long ways, starting way back in the depression era. He took over a family run business from his Father in 1940. The name of that company was Motorola. During the depression they made car radios, and then specialized in walkie talkies during WWII. And did you know that prior to WWII they were known as handie talkies. Whatever they were called the Army bought 10 million dollars' worth of them from Galvin.

He went from a stock room apprentice to CEO, only taking a break for WWII. When he retired he had taken the company from a moderately successful business to high tech global giant. He led the company in developing cell phones, pagers, police radio systems, hearing aids, semi-conductors, and entered the field of missile guidance systems and satellite communications.

Three decades after he took over the helm company sales went from 290 million to 10.8 billion. Talk about a jobs stimulus program. He had that Steve Jobs' touch as seen in a quote from Harry Mark Petrakis, "He had this amazing ability to see what was coming down the pike."

And for those who are asking, "What does this have to do with Ham Radio?" The Thanksgiving holiday is coming up this month and we should all be thankful that there are movers and shakers out there who have given us the benefit of their entrepreneurial genius. That calculator that you used in order to hack a formula for one of your license tests just may have had a Motorola IC in it. And if you own a fine piece of Yaesu equipment, well, Vertex Standard is now owned by.....can you make a wild guess? Motorola.

## WHICH HAT TO WEAR

By Tim Bell, KA1ZQX

**W**ith the recent disaster (Hurricane Irene) many have wondered what they could do to help or what could I have done. Well, many of us in the Amateur Radio community have the answer to that. We have quite a few ham radio operators in Windham County, but just a small percentage actually participate in Emergency Communications. As you know, we were stretched very thin in this county because many of us wear quite a few different hats. Well in an emergency, it may be possible to wear two hats, but impossible to wear all of them.

It's easy . . . to start one could get involved in ARES (Amateur Radio Emergency Service). You don't have to be an ARRL (American Radio Relay League) member to participate here. This small but busy group handles anything from walk-a-thons to helping out the Red Cross.

RACES (Radio Amateur Civil Emergency Service) is another group of fine hams that work under (in Vermont) Vermont Emergency Management. When activated by VEM we enhance communication's abilities where needed. Communication was a big issue during Irene and RACES came to the rescue.

CERT (Community Emergency Response Team) is another hat many hams in Windham County wear. This group of people (hams and non-hams alike) augments safety organization here in Windham County by volunteering their time in; first aid, traffic control, light search and rescue, sheltering services etc.

If any of these programs seem interesting to you, please feel free to ask either myself—[ka1zqx@arrl.net](mailto:ka1zqx@arrl.net), or John Borichevsky - N1TOX @ [n1tox@comcast.net](mailto:n1tox@comcast.net) or WK1L-Brother Francis Hagerty - [hagertysse@myfairpoint.net](mailto:hagertysse@myfairpoint.net).

If you are not ready to ask anyone in person, there is a wealth of information on the West River Radio Club web site, <http://www.westriverradio.org>,

For CERT, the Vermont Emergency Management web site <http://vem.vermont.gov/programs/cert>,

For RACES use this URL <http://vem.vermont.gov/programs/races>

Whatever hat you decide to wear, you will find that helping those in need makes you feel really good inside! Hope to see you soon at any training event.





## FIELD DAY – VERMONT RESULTS

It is with great pride that I pass on the chart below and an email from AA1SU, Paul Gayete, VT Section Manager. And hearty thanks to all that helped make our 7<sup>th</sup> year of participation a rousing success. Go to your calendar right now and set aside the last full weekend in June of 2012 for another weekend of operating adventures.

Hey WRRRC,  
 Congratulations on a nice score in the 2011 ARRL Field Day!  
<http://www.arrl.org/results-database>

Your 2262 points in the 3A category resulted in:  
 2nd place in Vermont.  
 12 of 19 in New England.  
 171 of 340 in the country.

Overall you placed:  
 5 of 10 in Vermont.  
 59 of 146 in New England.  
 838 of 2632 in the country.

Congratulations on a job well done!

73  
 Paul N. Gayet AA1SU  
 ARRL Vermont Section Manager  
[AA1SU@arrl.org](mailto:AA1SU@arrl.org)  
 FISTS #4028  
 Please visit  
<http://www.arrl.org/Groups/view/vermont>  
 for the latest in ARRL Vermont Section News

#	Call	Score	Category	QSOs	Power Mult	GOTA Call	Section	Participants	Club
1	W1NVT	16,320	2A	5,467	2	W1PU	VT	23	Radio Amateurs Of Northern VT
2	N1VT	5,926	4A	1,626	2	AB1CH	VT	32	Green Mtn Wireless Society
3	K1SV	5,782	3A	2,012	2	WT1B	VT	20	Southern VT ARC
4	W1ECH	4,795	1E	506	5		VT	1	
5	WR1VT	2,262	3A	455	2		VT	30	
6	W1KOO	1,654	2F	422	2		VT	19	
7	N1NRA	1,002	1F	176	2		VT	4	
8	N2JFS	294	1A	22	2		VT	3	Halifax Em Comm Krewe
9	W1MP	218	1E	34	2		VT	1	
10	W1PAZ	70	2AB	2	5		VT	3	Wage Peace RG

Bro Frank, WK1L, has pointed out to me that with 30 participants, we had the second highest number of folks involved of any of the Vermont club entries. Only the Green Mountain Wireless Society beat us with 32 participants.

## SOME HISTORY AND ADVICE

On Thursday, November 24 most of us will sit down to dine on a dead gobbler stuffed with who knows what and assorted side dishes. If I spent more time in the kitchen I might know what was in the bird. Let's hope that you'll be able to be with family, or at least some good friends.

A bit of history: Thanksgiving is celebrated on the fourth Thursday in November, and has officially been an annual tradition in the United States since 1863, when during the Civil War, President Abraham Lincoln proclaimed a national day of thanksgiving to be celebrated on Thursday, November 26.

The "first thanksgiving" was celebrated by the Pilgrims of Plymouth Colony. They had a lot to be thankful for. After all, they had, with the help of some local Indians, survived their first winter in America.

The first Thanksgiving feast lasted three days, providing enough food for 53 pilgrims and 90 Indians. The feast consisted of fish (cod, eels, and bass) and shellfish (clams, lobster, and mussels), wild fowl (ducks, geese, swans, and turkey), venison, berries and fruit, vegetables (peas, pumpkin, beetroot and possibly, wild or cultivated onion), harvest grains (barley and wheat), and the Three Sisters: beans, dried Indian maize or corn, and squash. The New England colonists were accustomed to regularly celebrating "thanksgivings"—days of prayer thanking God for blessings such as military victory or the end of a drought.

For those of you who like detail I suggest that you go to [www.wikipedia.com](http://www.wikipedia.com) – There is enough material there to keep you engrossed until Thanksgiving 2012.

Before you run off to Wikipedia, though, here's the advice mentioned above:

- ◆ Have a wonderful Thanksgiving holiday
- ◆ While you're at it don't forget the name of the day and be thankful
- ◆ And don't forget to be thankful for our men and women in the armed forces. Because of them we have the freedoms we enjoy today.
- ◆ If you have trouble thinking of things to be thankful for more advice can be had by emailing me at [k1ku@myfairpoint.net](mailto:k1ku@myfairpoint.net)



## RANDOM THOUGHTS

I guess that my first random thought is, "How do newspaper editors fill up empty space?" I know how this one does. He rambles on, and maybe on, and on, and on.

I can mention that I dropped off an old tube type linear with NX1DX, Vince, in Charlestown, NH. He's only a half hour drive from this QTH. Vince is a nice guy who does rig repairs on his time off. If you're interested in using his services give me a shout. He did say that he doesn't do much with solid state gear, but prefers the old tube stuff

I will also mention that I will no doubt do an abbreviated version for December and take January of 2012 off. After the wild parties we hold here with the white hair, no hair crowd I'm usually not up to doing newsletters.

Did I say that this club will shortly be entering it's 9th full year of existence? Then let me say it now. That is quite an accomplishment. Many ham clubs are good for a year or so and then bite the dust.

To survive that long means that a lot of folks have put forth a lot of effort. If they all got paid for all that effort they'd probably rich by now.

One of those folks is our current President, one John Borichevsky, N1TOX. If you read his comments on page #1 you'll know that he'll be stepping down as our President. He's done a bang up job for a lot of years and deserves a big round of applause. Pause for applause. He deserves more, but we're in no position to pay him anywhere near what he's worth. Besides, volunteers don't do it for the money. I only have one column to ramble in so I'll leave it up to you to list why they volunteer.

Of course, John is not content with just leadership chores. I'd need a lot more pages to list all of the hats he wears. Among a few are:

- ◆ Maintaining the club web page
- ◆ RACES coordinator for the state of VT
- ◆ A CERT leader for Windham County

The good news is that I've learned on good authority that he'll still be a major part of the WRRC team. That fact alone, will insure at least another eight years of club accomplishments.

It's sure good to have you with us, John.

CUL es 73 de K1KU SK

