



WEST RIVER RADIO CLUB

DIGITAL DISPATCH

November - 2006



Volume 1

Issue #10

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

Our forty six 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
KD6MPY, Sean Sanderson; VP
K1KU, Darrel Daley; Secretary/Treasurer
KA1ZQX, Tim Bell; Pubic Relations**

PRESIDENT'S CORNER

November 2006

A year in review.....

Here we are in November 2006 and the year is almost over. We are still a growing club folks and we are still a club in the fore front leading the way. Without your help and support, this would not be possible. If you attend the RACES meeting on November 4th, you will see just how much we are a vital part of Vermont Emergency Management. With the feature presentations, drills, posters and talks during the meeting, we have brought the VT EmComm world to notice us here in the banana belt of Southern Vermont.

This year has been a great year for us to review. We have increased our membership, had a successful Tech Class "Crash Course" and a new Extra Class. We have expanded our

"A-Thon" support work and have even more on the docket for next year. Field Day 2006 was a huge success for us with many visitors watching us do our magic, and even some who later obtained their licenses to operate!! Press time, yes we got press time this year thanks to our new PR Guru. We were mentioned in all of the local papers in a couple of articles. Let's not forget to thank the Repeater Guru's who maintain the local repeaters for us to use and who are continuing to expand our capabilities. We even have gone out for dinner as a team too, which will be carried on for years to come. A good job has been done by all!!

So there have been a lot of things we all have done which compliment our directive, to support the hobby we love, Amateur Radio, and the communities we all live in. We all should feel really good about this. We are one fine team and I want to thank all of you for your help and support to the West River Radio Club. It has been one great year and next year looks even better for us.

Remember, December is our annual Pot Luck Luncheon, "Mini Ham Fest" and Election of Officers. Information will be coming to your email "Inbox" soon, and snail mail for the few PC disadvantaged amongst us.

Thank you all for your help and have a safe and happy holiday season!

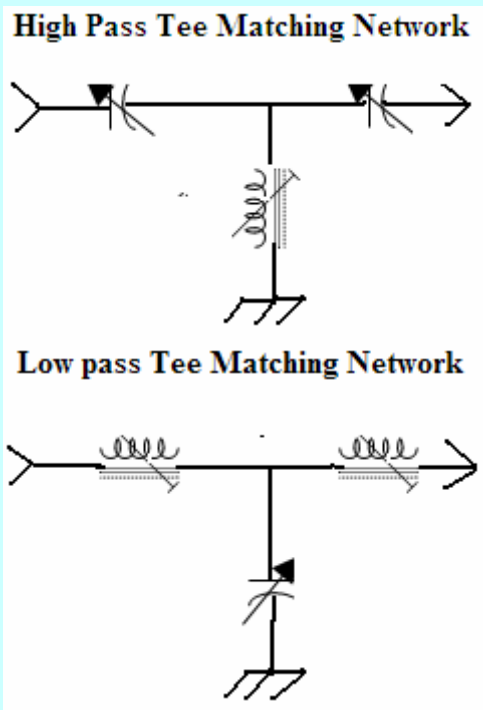
73,

de N1TOX

John Borichevsky – President WRRC (and wearer of way too many hats to mention)

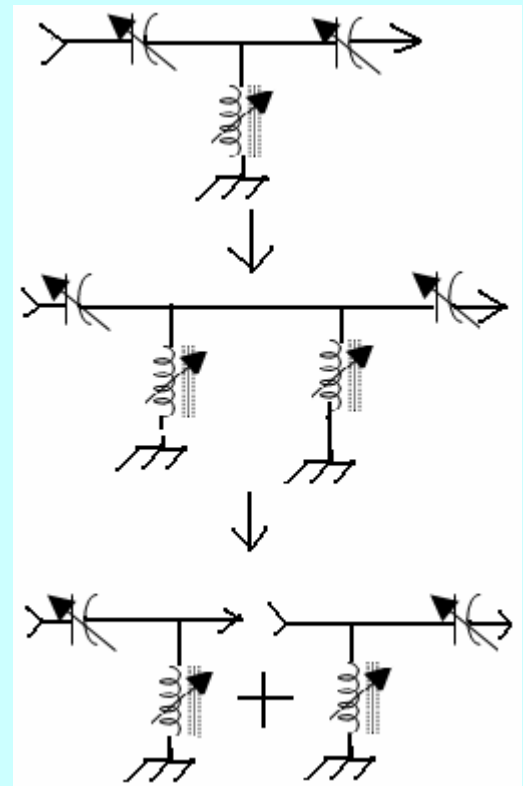
The Tee Network

In this the last of the series on matching networks (I am not going to address resonant matching networks like the Z network because I don't understand them) we will discuss the Tee network. This network in the high pass form is far and away the most common commercial matching network. There are two reasons for this – economics and flexibility. The Tee network is shown in the figure.



From an economic perspective variable capacitors are cheaper than variable inductors. From the flexibility perspective the Tee network (either form) is usually able to match a wider range of load impedances than the Pi; especially considering that Ham antennas are often short and therefore have a lower impedance.

The Tee network may be viewed as a Pi network inside out or as an impedance raising L network followed by an impedance lowering L network. In the latter case we can think of the Tee network undergoing the following decomposition.



In this situation the sequence of the impedance transformation (first an up then down) is just the opposite of the Pi network.

The Q of the Tee network can be no lower than an L network with the same impedance transformation ratio, and will generally be higher.

The Tee network as the Pi, may have multiple combinations of values which indicate a match. Only one of these combinations will have the minimum possible loss. It is possible to have the network absorb a major portion of your transmitter power leaving much less to radiate. Usually, that settings of the network controls having the lowest amount of capacitive reactance on the output end (highest value of C) will give the least loss of power.

In summary we find that the L network is the fundamental circuit for ladder type matching networks. It will have the lowest possible Q for the impedance transformation required and therefore the widest SWR bandwidth. It has a single set of conditions for the matching situation and it can appear in the high pass and

low pass forms. The L network can serve as an impedance step up or step down network. The L network is unable to match loads approaching 50 Ohms in impedance and its matching range for a given set of components is generally less than its colleagues the PI and the Tee.

The PI network can be seen as two L's back to back. It is often found where the power source has high impedance. It can appear in low pass and high pass forms, the latter being more common for economic reasons.

It has a narrower SWR bandwidth (from higher Q), may have somewhat higher losses and can match loads at or near 50 Ohms.

The Tee network is the most common matching network because it is the lowest cost and most flexible of the matching networks. It can be viewed as a PI network inside out or two L networks back to back (or front to front if you prefer). It generally has the best matching range and is able to match loads near 50 Ohms. It will have higher Q and thus narrower SWR bandwidth than the L. If not properly adjusted it can have severe losses.



"Well it all started when I was a child...I felt that I had difficulty communicating with people..."

DIABETES WALK

It was a sunny, but coolish Saturday, October 21st when the following WRRCCers provided communications for the Diabetes Walk in Brattleboro, VT.

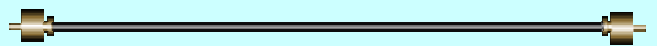
A hearty thanks to all.

KB1HCG, Mark	AA1T, Grant
KB1NJA, Walter	W1ZS, Burt
N1PBX, Conrad	N1TOX, John
WB7SEK, Roger	K1KU, Darrel

This new event for us brings our total of walk/run events up to three:

- o March of Dimes
- o Girls on the Run
- o Diabetes

Give a thought to joining other club members for one of these events. There's no pain or strain and, besides a good feeling, you get some free food and a tee shirt. Hint: Get the XX Large size. They make great night shirts.



ORIGINS OF OUR NICKNAME

(During the course of the next several months, years, or even maybe decades, I'll be bringing you some historical perspective on our great hobby. I'm indebted to the AC6V web site for providing all of this information.)

One of the most common theories about the origin of "Ham" has to do with "little station HAM". In the early days of radio, the government didn't assign call letters to amateurs. They just made up their own. Supposedly, three students at Harvard named Hyman, Almay, and Murray set up a station. They decided to use their initials as the call. Thus we have the little station HAM.

When the Navy tried to grab control of all radio frequencies, these guys are supposed to have testified before Congress, and the story of little station HAM supposedly didn't leave a dry eye in the house. The press is supposed to have

picked up this story of little station HAM, and amateurs have been known as hams ever since. Unfortunately for this story, none of it checks out. A past president of the ARRL did extensive research in an attempt to confirm this story.

There is nothing in the Congressional record about little station HAM. There is nothing in contemporary press records. And there is no record of a Hyman, Almay, or Murray at Harvard at the time this supposedly happened. This story first surfaced in an amateur publication in 1948, and doesn't seem likely to die. But it appears to have no factual basis.

Another story you may hear is that ham is the result of a Cockney pronunciation of (h)amateur. But that is unlikely for two reasons. First, the term was in use in America before there was substantial amateur activity in Britain. And second, voice transmission wasn't used by amateurs of the era, so how did a pronunciation get propagated by Morse?

This riveting saga will be continued in next month's issue.



KB1KSR, Ed – a NEW General



KA1ZQX, Tim-KB1KSR-Ed-AA1T, Grant-KB1QB, Chas-KD6MPY, Sean
(The fellow between Ed and Grant did not do too well on the test.)

OUT OF THE ARCHIVES

As our illustrious club plans yet another class and VE session let's pause a moment to look back at two of our early endeavors in 2004 and 2005.



KA1TWV, Elaine-KD6MPY, Sean-AA1T, Grant

Digital Dispatch – November, 2006

November DOINGS (Es looking ahead)

- ◆ **November 4** – RACES statewide convention Vermont Police Academy in Pittsford, VT.
- ◆ **November 8** – RACES drill.
- ◆ **November 14** – WRRC regularly scheduled meeting: 7 PM in the EMT room at Grace Cottage Hospital.
- ◆ **November 18-19** – The WRRC will once more sponsor another Technician crash course over this weekend. Times

and location to follow. Get to work now finding some potential new Amateurs.

- ♦ **December 9** – Mark your calendar now for our annual meeting; Potluck, mini ham fest and election of officers for 2007. Jeanette, N1REB, has graciously taken on the organization duties for this gala affair. (n1reb@sover.net)
- ♦ **January, 2007** – Stay tuned for further information on another annual dine out to help chase away those cabin fever blues. David, N1ESK, is making the arrangements for this one. (n1esk@sover.net)



NEED HELP?

We can't solve any personal problems, but for Ham and club related matters we'll try our darndest.

General club related matters: contact our President, John Borichevsky, N1TOX – n1tox@adelphia.net or 802-257-5526

Membership, ARRL renewals or joining the League, and financial information: contact Darrel Daley, K1KU, k1ku@arrl.net or 802-387-5822

VE tests, club programs, or Ham classes: contact Sean Sanderson, KD6MPY, kd6mpy@arrl.net or 413-695-5133

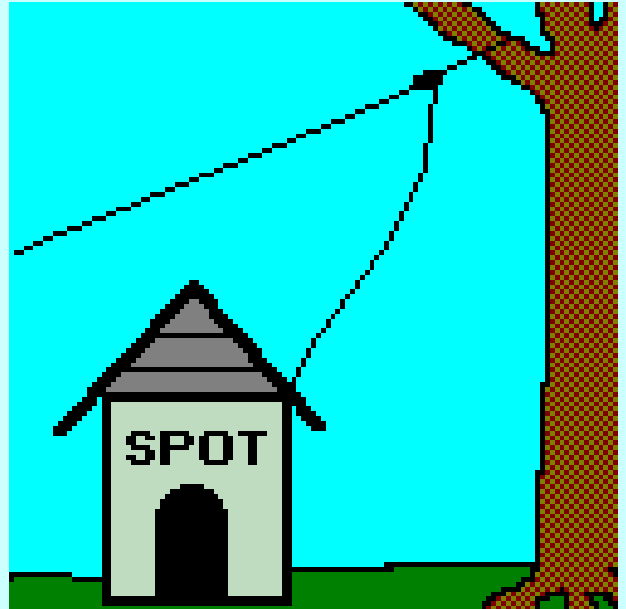
PR or ARES ideas? Contact Tim Bell, KA1ZQX at ka1zqx@arrl.net or 802-365-7046



Also, surf to www.westriverradio.net where you'll find a wealth of information.



FOR THOSE TIMES WHEN YOU'RE IN THE DOGHOUSE



Another custom installation by Antennas R US

CUL es 73 de K1KU SK

