



WEST RIVER RADIO CLUB

DIGITAL DISPATCH

March - 2007



Volume 2

Issue #3

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 fifty 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

March 2007

Where else can you.....

Have fun and meet new people worldwide?

Talking on the radio is a good way to visit other countries from your easy chair, radio shack, computer, or where ever you are. And best of all, you do not even need a plane ticket. The only thing better to the communication would be a personal vacation to that country!

Enter into a hobby that tailors to all budgets?

Unlike NASCAR, where the money talks and bigger operations mean better rewards, you are part of a hobby that you can do well for as little, or as much, money as you want. But on the other hand, you can also go whole hog and spend thousands. Yes, you can buy a radio off a public auction, an estate sale, or a scratch and dent sale, for a little bit of money. Then you can

put up a \$10.00 antenna and work the world. Being thrifty is a neat way to enter this hobby and learn how to make it work on a budget. Then after you save your spare change, you can upgrade your equipment as needed. Remember, the one who goes to the great ham shack in the sky with the most radios and equipment, wins!!

Do good for the general public? This hobby is one where we can utilize our skills and equipment to amaze the general public on what we can do. What happens when the power goes out or severe weather hits? We can be ready to bring information from the outside world into our area by using emergency power. Bringing comforting words to friends and family outside of an effected area also soothes everyone's nerves and calms the family concerns. We all know how this is done so I will not dwell on this.

So, whatever your current level in Amateur Radio is today, you have achieved a great value in education and personal accomplishments. While looking forward at your long term goals, there are a lot of folks who can help you get there by sharing the experiences they have also enjoyed and learned. We have all been there and we all can help you avoid the pitfalls. Whether you are interested in VHF/UHF communications, HF, Satellite Tracking, CW, or any other mode available to this ever expanding hobby, there will always be some new mode out there to keep you interested. Please remember that once you become an expert in a specific area, look to expand your operations. Maybe it is a new antenna, a radio, or just a new mode of operation. Expand your knowledge and explore the possibilities.

Where else can you... become a better Amateur Radio Operator? Remember all the knowledge you gained. Try a new mode of operation. Become an Elmer to another ham and share your knowledge. Remember your past and remember Morse code. While it is no longer required for licensing, it is still a mode of communication that gets through where voice cannot go. Give it a try.

So where else can you.... preserve the history of Amateur Radio? Open your doors and introduce your hobby to a friend and let them explore the world of communications too.

Until next time...

73

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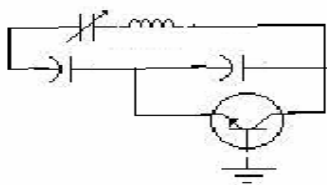
de NITOX

John Borichevsky – President WRRC



Colpitts (cont.)

The classic Colpitts circuit as depicted in the previous column has several variations. Like so many facts of life, each variation has virtues over alternatives so one pays ones money and one makes ones choice.

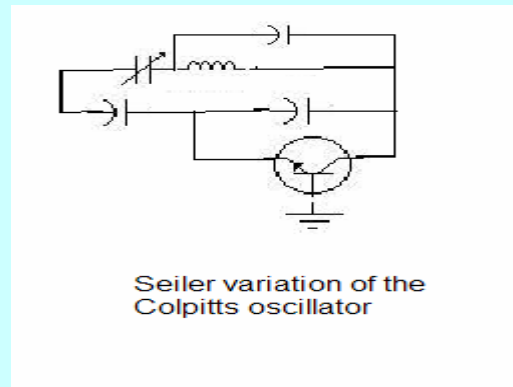


Clapp variation of the Colpitts oscillator

The Clapp variation of the Colpitts oscillator involves increasing the inductance of the coil and then removing the excess inductance with a series capacitor.

This modification has the effect of increasing the amount of energy stored in the tank circuit. Oscillators with increased energy stored in the tank often have lower noise. This circuit is often referred to as a series tuned Colpitts.

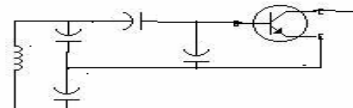
A second variation of the Colpitts circuit involves addition of a small fixed capacitor in parallel with the inductor of the tank circuit that also has the series capacitor in it. This circuit is often referred to as the Seiler variation.



Seiler variation of the Colpitts oscillator

This circuit change has the effect of allowing better decoupling between the active device, BJT or FET, thus reducing the effect of variations taking place in the active device. Changes in interlayer capacitance due to thermal effects and voltage swings will have less impact on frequency stability.

Still another variation of the Colpitts circuit is the so-called Vacker circuit The Vacker allows the base of the transistor to be driven from a lower impedance conferring the same advantages as the Seiler arrangement.



Vacker variation of the Colpitts oscillator



RUNNIN' ON EMPTY

Greetings to all from the suburbs of Putney.

Has it been a winter to talk about or what? Then again, what winter isn't? Speaking of spring, have your thoughts turned to new antenna installations yet? Or maybe just some tweaking and peaking of what is already up there in the air. Granted that there is something to be said for putting up an antenna when it's minus 20F and the wind is howling, but what is usually said is really not printable.



The above is what is known as a segue. (I'll pause a moment while you go dig out your American Heritage Dictionary) Back yet? Here we go anyway. Some of you may be unfamiliar with the fact that a small cadre of WRRC members are involved with a noble endeavor, namely, enabling fellow members get their signals from point A to point B.

The moral of this essay is that if you're a club member with a license that allows communications on the HF bands and need an apparatus capable of accomplishing your goal, why then, give us a shout. You'll see our flyer nearby.

Now spring leads to summer and, let's face it, summer just wouldn't be summer without Field Day. This most popular of ARRL operating events (it's not really a contest) always takes place on the last full weekend of June. FYI, the WRRC will be holding its third FD, once more at the QTH of Ed, KB1KSR, and Lois Phoenix. Maybe I'd better check with Ed before I send this off.

Our club score and participation has improved each year and 2007 will be no different. We'll have three stations on the air (CW, SSB, and a digital setup) as well as the new addition of a satellite station. There is always food galore,

plus the camaraderie of being with a lot of mostly like minded fellow Hams.

You are all hereby cordially invited, either to operate, kibitz, help with the set up or tear down, or just stand around and look silly. More details will be appearing as the BIG date approaches.

So, until April 1.....

73,
Darrel – K1KU

A flyer for 'ANTENNAS R US' with a red border. The text reads: 'Professional wire antenna installations for today's discriminating Ham'. Below this is a drawing of a house with a ladder leaning against it, and a curved arrow pointing from the ladder to the top of the house. To the left of the drawing, it says 'Our prices cannot be beat! 100% satisfaction guaranteed or double your money back!'. Below the drawing, it says 'You've tried the rest - Now pick the best'. At the bottom, it lists contact information: 'KD6MPY, Sean Sanderson - kd6mpy@arrl.net', 'AA1T, Grant Warner - cgwarner@svccable.net', 'K1KU, Darrel Daley - k1ku@arrl.net', and 'Other installers currently under contract are: N1TOX, John Borichevsky, KB1LQB, Charles Baker'.

MARCH DOINGS (Es looking ahead)

March 8 – May 10: General class. If interested, or know of some Tech who is give Sean, KD6MPY, a shout at kd6mpy@arrl.net

March 13: Regularly scheduled meeting of the WRRC in the EMT room at Grace Cottage Hospital. The festivities begin at 7 PM.

March 10 - 19: DXpedition on Spratly Island. See if you can match Burt, W1ZS, or your humble editor on a band/mode count of QSOs.

March 31: Regularly scheduled meeting of the Board of Directors at the PanAsian Restaurant by Staples in Brattleboro. All members are welcome to attend. Things start at 11:30 AM.

April 10: Regularly scheduled meeting of the WRRRC. 7 PM in the EMT room at Grace Cottage Hospital.

April 18: RACES drill



SHOCKING FACTS ABOUT ELECTRICITY AND HISTORY

(Ed note: Perhaps only the most technically inclined of our readership are aware of the facts presented below.)

Author Unknown

Today's scientific question is "what in the world is electricity and where does it go after it leaves the toaster?"

Here is a simple experiment that will teach you an important electrical lesson. On a cool dry day, scuff your feet along a carpet. Then reach your hand into a friend's mouth and touch one of his dental fillings. Did you notice how your friend twitched violently and cried out in pain? This teaches us that electricity can be a very powerful force, but we must never use it to hurt others unless we need to learn an important electrical lesson. It also teaches us how an electrical circuit works. When you scuff your feet, you pick up a batch of electrons which are very small objects that the carpet manufacturers weave into the carpets so they will attract dirt. The electrons travel through your blood-stream and collect in your finger, where they form a spark that leaps to your friend's filling, then travels down to his feet and back into the carpet, thus completing the circuit.

Amazing electronics fact - if you scuff your feet long enough without touching anything would you build up so many electrons that your finger would explode? This is nothing to worry about unless you have carpeting. Although we modern persons tend to take our electric lights, radios, mixers, etc., for granted, hundreds of years ago people did not have any of these things. Which is just as well, there was no place to plug them

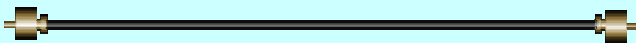
in. Then along came the first electrical pioneer, Benjamin Franklin, who flew a kite in a lightning storm and received a serious electrical shock. This proved that lightning was powered by the same force as carpets. But it also damaged Franklin's brain so severely that he started speaking only in incomprehensible maxims such as "a penny saved is a penny earned". Eventually, he had to be given a job running the post office.

After Franklin came a herd of electrical pioneers whose names have become part of our electrical terminology. For example, in 1780, Luigi Galvani discovered (this is the truth) that when he attached two different kinds of metal to the leg of a frog, an electrical current developed and the frog's leg kicked, even though it was no longer attached to the frog which was dead anyway. Galvani's discovery led to enormous advances in the field of amphibian medicine. Today, skilled veterinary surgeons can take a frog that has been seriously injured or killed, implant pieces of metal in its muscles, and watch it jump back into the pond just like a normal frog - Except for the fact that it sinks like a stone.

But the greatest electrical pioneer of all was Thomas Edison who was a brilliant inventor despite the fact that he had little formal education and lived in New Jersey. Edison's first major invention in 1877 was the phonograph which could soon be found in thousands of American homes where it basically just sat until 1923, when the record was invented. But Edison's greatest achievement came in 1879 when he invented the electric company. Edison's design was a brilliant adaptation of the simple electrical circuit. The electric company sends electricity through a wire to a customer then immediately gets the electricity back through another wire. Then (this is the brilliant part) sends it right back to the customer again. This means that an electric company can sell a customer the same batch of electricity thousands of times a day and never get caught, since very few customers take the time to examine their electricity closely. In fact, the last year in which any new electricity was generated in the United

States was 1937. The electric companies have been merely reselling it ever since, this is why they have so much free time to apply for rate increases.

Today, thanks to men like Edison and Franklin, and frogs like Galvani's we receive almost unlimited benefits from electricity. For example, in the past decade scientists developed the laser, an electronic appliance that emits a beam of light so powerful that it can vaporize a bulldozer 2000 yards away, yet so precise that doctors can use it to perform delicate operations on the human eyeball, provided they remember to change the power setting from "vaporize bulldozer" to "delicate".



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@comcast.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



N1TOX, John – KD6MPY, Sean – K1KU, Darrel – KA1ZQX, Tim

Ever wonder what your Board of Directors look like? If you've attended a WRRC event, then probably not. For those of you we'd love to see sometime just cast your eyes upwards.



Gordon, W2NH is captured here enjoying his dessert at the annual WRRC Dinner on Feb 3, 2007. Mmm.. sure looks good!! But did he finish it?

CUL es 73 de K1KU SK

