



WEST RIVER RADIO CLUB

DIGITAL DISPATCH

May – 2007



Volume 2

Issue #5

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 nine 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

May - 2007

Recovery...

Well, as most of you know, I was in Salt Lake City last month. Most of the stuff about me in the March issue of the *WRRC Digital Dispatch* was true and real life, just a little twisted to make some humor out of it. The beer was great, the police were nice, I did learn about IP snooping, and much more. But the trouble happened coming home. My luggage was missing for 5 days on the return trip. It just did not make the last leg of the trip from Baltimore, MD to Hartford, CT. Now, because we are out of the 60 mile range of the delivery service, I had to rely on Fed-Ex to get my bag to my house. But landing on a Saturday and not getting delivery of my luggage until Wednesday was a real eye opener. Be prepared for anything!!

This sure was true for this past month's weather adventures. Was it spring, fall, or winter? Maybe it was summer! We had everything, a mini heat wave, rain, sleet, snow, falling trees, power outages, phone service problems, and flooding. During the flooding of March 18th, I know we were all prepared for emergency deployments and were waiting for the call. I was summoned to a VEM meeting in Brattleboro to be prepared to activate the RACES program. I had on standby 4 other members who were ready to make the phone tree sing and get everyone activate. They were all waiting for my call, but this was not necessary as the weather cleared up and things settled down. We were lucky. Yes, the EOC did open up for 3.5 hours, but the information did not call for activation of the local emergency teams.

Rutland County was not so lucky, we all know this. The city I grew up around and frequently visited, was devastated. While working on our own emergencies, I talked with John Gladding, N1HLG, and knew Rutland was in trouble. He was telling me about the downed trees, power outages, and the other problems, and I then had a good vision of what was going on. But we were both deployed, and we could not assist one another. It was a terrible feeling knowing you want to help ones who helped you, but could not because of our own problems. We needed to take care of ourselves, which we did and prayed for the others.

Recovery is more than a personal feeling. It is the act of making things better than they were for those around you by lending a hand. I know our WRRC team was ready for deployment during our last weather outbreak. We have practiced this procedure many times. I know this and can count on your contributions to amateur

radio and the WRRC emergency team. While we were not deployed, we were ready to make things better for others.

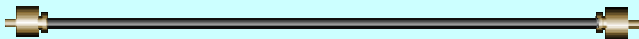
Recovery is a satisfaction goal and the completion of a circle. Things do happen and get repaired by grateful volunteers, like you, and those around you. This is a goal of the WRRC team who makes recovery possible for Windham County. Thank you for your continued support and efforts you bring forward. Please keep up the good work and help out as you can, contribute a bit more than before, and think of the future. Devastation to Recovery is a long hard road to walk on. We are a crutch to aide others. It could happen here or in a neighboring town or state. Be prepared and thanks again!

73

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de N1TOX

John Borichevsky – President WRRC



(Ed. Note: I don't want to neglect a pause now and then to thank Grant, AA1T, for the work he puts in on keeping our memories refreshed on the technical side of this great hobby.)

Oscillators

I will wind up this series of articles on oscillators by a brief discussion of what is in my opinion a truly unique oscillator. Fig 1 is the circuit diagram of a Butler oscillator which is a circuit topology employing two active devices

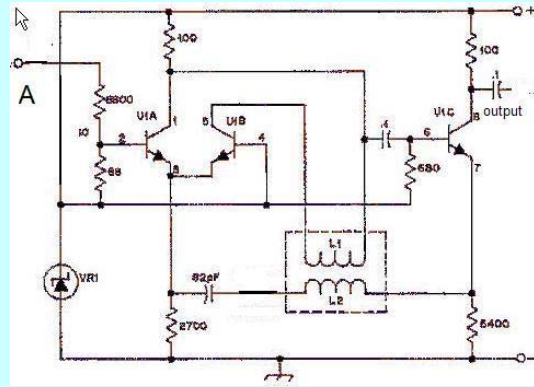


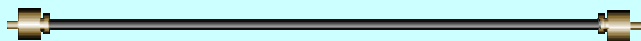
Fig 1

I first saw this circuit in the 1974 collected volume of Amateur Radio Techniques published by the RSGB and edited by Pat Hawker G3VA and subsequently described in the March 1977 issue of QST in an article by David Stephenson VE5KQ.

The key question is what one varies to change the frequency. Examine the diagram carefully and see if you can determine how the frequency is varied (no cheating now and looking further along in the article).

This oscillator also has a really linear tuning characteristic. That is the frequency change is linearly related to the change in the value of the control element. In these days of digital dials this may not seem such a big deal, but in the days of analog dials the production of an oscillator with a linear tuning curve was very difficult. Linear tuning required a great deal of engineering effort and was very difficult to achieve in a home brew oscillator. Commercially this characteristic was often achieved by the use of variable capacitors with specially shaped plates. This was required since the frequency change with the degree of rotation is a square root function using circular shaped plates. There are other methods such as using plates where the center of rotation is offset from the geometric center of the plates but one can see that these methods require a high order of engineering and metal working skills. Linear tuning is desirable because it enables the dial to be calibrated at only one or two points rather than at many points along the scale.

The tuning of this oscillator is achieved by varying the dc voltage applied to point A. This circuit operates by a signal being amplified by V1A (a grounded base amplifier stage) and passed to V1C (an emitter follower amplifier) and fed back to V1A through the series tuned section composed of L2 and the 82 pF series capacitor. The frequency is varied by varying the inductance of L2. How is this done? If the potential at point A is varied, the amount of current shunted to L1 is varied and if L2 is wound counter to the winding direction of L1 then the RF current in L1 is out of phase with the current in L2 and cancels some of the inductance in L2 thus changing the effective inductance of the tuned circuit and thus the frequency. To my knowledge this is a truly unique way to produce a variable inductor. If one were to impose an AC signal on the potential at point A then an FM signal would be produced. Again, a unique way of producing such a signal. This circuit is a voltage variable oscillator in the days before voltage variable capacitors were common, and has a greater range of variability with no problems associated with the bias of voltage variable capacitors.



RUNNIN' ON EMPTY

After a rousing April issue (C'mon, it was rousing, roger??) it's time to get back into a serious vein. Come to think of it, only two comments were received on the April issue and one of those came from a non-club member up north who is on the mailing list. Remember, we're broad shouldered here. At least that's what we keep telling ourselves. Your suggestions are welcome, be they on content, formatting, blah, blah, blah.

We're proud to announce a new club Elmer program. The WRRC is doing more than its fair share of bringing new blood into this great hobby. Via VE sessions and 2-3 classes per year ten new Amateur Radio Operators now can enjoy this exciting pastime. Ten more have upgraded their licenses.

One concern of your Board of Directors has been the fact that on occasion these neophytes don't continue on to put into actual practice all the things they've learned in earning their ticket. In an effort to help reverse this situation we'll be publishing our own WRRC Elmer brochure. This will be given to every new Ham that passes their Technician exam. Due to NITOX, John's skills with the PC we now have a very professional looking brochure guiding these fledglings to club members who have graciously volunteered to offer aid and comfort to those needing it.

If you're not aware we have for some time given a one year free membership to all new Technicians who enter the hobby via a WRRC VE session. This program was instituted to encourage attendance at our meetings and events so that they could find out first hand what a great bunch of people we really are, as well as how willing we are to offer guidance on communications matters.

Speaking of involvement – check out the MAY DOINGS section of this newsletter for all the good things coming up. Our second annual assistance with the Girls on the Run event is going to need at least 10-12 participants from the WRRC. Consider getting up from the TV lounge for awhile and get some fresh air and exercise by joining us.

Then there's always Field Day on June 23-24. This will be our club's third year of participation and it's going to be our best showing yet, honest!! We'll do a 3A operation with CW, digital and phone stations. N1ESK, David will be there with a satellite station. So even if you don't wish to do any operating come out to practice your kibitzing skills. Extra hands are also always welcome on Friday PM and Sunday PM to get all those antennas and screen houses put up and torn down. Also, there's always a



great pot luck on Saturday afternoon.

Our hearty thanks to our hosts for the third year in a row; KB1KSR, Ed and his gracious wife, Lois.

Finally: Is the WRRC rich? Not really, but we're doing OK for a club that only charges \$10 for a year's membership and hasn't raised its dues since our founding in 2004. If you feel so inclined, though, here's a relatively cheap way to make us richer. Our by-laws allow for auxiliary memberships (usually non-Ham spouses who are non voting members). So, when renewal time comes around you might want to consider tossing in an extra \$5 and make your dearly beloved a part of our group.

CU in June and 73 de K1KU, Darrel

TWO MORE NEW ONES

It cannot be said that the WRRC is not doing its darndest to bring new blood into the hobby.

Our congratulations this month go out to Andy Hall, KB1OVJ and Mike Hill, KB1OVK, who earned their tickets on March 29. Both are employees of Brattleboro Memorial Hospital and were instrumental in getting the RACES hospital station set up there. We look forward to seeing them at upcoming club meetings and events.

Thanks to the VEs who made it all possible, namely, N1TOX, John, KD6MPY, Sean, and K1KU, Darrel.



Sean, KD6MPY, shows W2NH, Gordon, KB1KSR, Ed and KB1J, Richard how to tame the ubiquitous Icom 706.



John, N1TOX, checks out the RACES station in Waterbury during a meeting he and K1KU, Darrel recently attended.

MAY DOINGS (Es looking ahead)

May 4-5: NEAR-Fest at the fairgrounds in Deerfield, NH. See <http://www.near-fest.com/> for details.

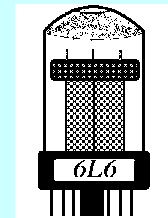
May 8: Skywarn training in lieu of our regular meeting - 7 PM in the cafeteria at Grace Cottage Hospital.

May 12: FISTS Sprint. 17:00 – 21:00Z. See www.fists.org for details.

May 19: Girls on the Run. 10-12 ops will be needed for this 2nd year of assistance by the WRRC. Contact John, N1TOX, (n1tox@comcast.net) if you can help out.

May 19: Board of Director's meeting. After the Girls on the Run event – around noonish at the PanAsian Restaurant.

June 22 – 24: Field Day. If you would like to help with set up/tear down, provide food for the Saturday potluck, or do some operating contact Darrel, K1KU – k1ku@arrl.net



Ten Undeniable Ham Truths

By William Reuter, AE0BR

I know these have been here before, but it is fun to revisit them. I can relate to 9 out of 10!

1. That antenna is only temporary . . .
2. "If my wife ever finds out what this stuff cost, I'm a dead man...."
3. The worthless stuff thrown away today shows up on eBay tomorrow.
4. If you can't sneak it in through the basement window, bring it in through the front door wrapped in a fur coat.
5. You have absolutely no trouble finding your car in a crowded parking lot. (Unless you're at a Hamfest.)
6. One of your antennas or piece of gear that you seldom ever if at all use develops a problem, now all of a sudden you must get it fixed as if you use it daily.
7. The XYL will ALWAYS need help with something DURING a QSO, never before or after the QSO.
8. During tornado watches and warnings, we are more concerned about our antennas coming down than we are about our house being blown up.
9. Computer Nerds think that Hams are the real weirdo's.
10. "Christmas" and or "birthday" come about 15 times per year (or whenever an unbudgeted radio purchase comes up). Technically, I shouldn't be getting any more "presents" for the next 10 years!



KB1NXN, Emily, under the tutelage of her Dad, N1ESK, David at our 2006 FD

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



CUL es 73 de K1KU SK



Your WRRRC Elmer Team

Antennas R US - This small cadre of WRRRC members are masters at making suggestions and installing antennas.

KD6MPY - Sean can easily deal with multiple circumstances and is especially knowledgeable when it comes to boat anchors, AKA older tube rigs kd6mpy@arrl.net
802-368-7343

K1KU - Darrel will help where he can and is well versed in operating whether it is CW, phone, or the digital modes k1ku@arrl.net
802-387-5822

N1ESK - David has a well rounded background and knows all about setting up for satellites n1esk@sover.net 802-257-8940

AA1T - Grant has forgotten more about radio than most of us will ever know. If it has to do with home brewing he's the man to contact cgwarner@svcable.net 802-348-7270

N1TOX - John has a good general background in radio, remote control radio operations with your PC, and is a WHIZ kid when it comes to keeping your PC humming along n1tox@comcast.net 802-257-5526

KA1ZQX - Tim has a lot of experience in Ham radio communications and very knowledgeable concerning emergency communications ka1zqx@netzero.net 802-365-7046

KB1LQB—Chas has a good general background in radio, another PC WHIZ and has a strong electronic background kb1lqb@arrl.net 802-258-4571

73 and congratulations on earning that new ticket.

The Officers and members of the West River Radio Club

ANTENNAS R US

*Professional wire antenna installations
for today's discriminating Ham*

*Our prices cannot
be beat! 100%
satisfaction
guaranteed or
double your
money back!*



You've tried the rest - Now pick the best

KD6MPY, Sean Sanderson - kd6mpy@arrl.net
AA1T, Grant Warner - cgwarner@svcable.net
K1KU, Darrel Daley - k1ku@arrl.net

Other installers currently under contract are:
N1TOX, John Borichevsky
KB1LQB, Charles Baker



WIRRC

West River Radio Club

(Vermont's Newest Amateur Radio Club)

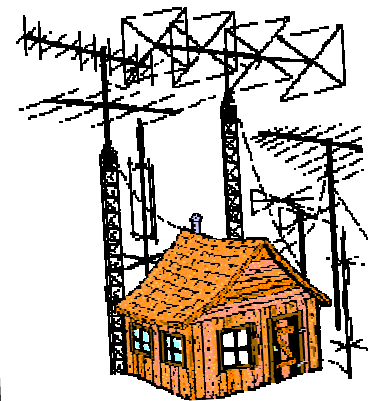
Communicating from the West River Valley in Windham County, Vermont, USA to the World!

Come join us at Grace Cottage Hospital in Townshend, VT every second Tuesday of the month at 7 P.M. for our regular meetings.

For more information about our club, visit our Webpage - <http://www.westriverradio.net> or Email us - wrrcnet@sover.net



West River Radio Club



Need Help?

Your
"Elmer"
is here!



Helping hams in the
West River Valley
for many years!

▶ Help Me!! I want to know what I'm doing!!

It is sad but true that sometimes after a lot of sweat, study, sitting through long classes, and passing your test, many new Hams fail to continue on in the hobby. The main purpose of this short bulletin is to help prevent that from happening.



The reasons for not putting to use all that knowledge you've acquired in actually getting on the air are probably legion. There is one, though, that your fellow members in the WRRRC can assist you with, namely **HELP**.

You have studied and have learned the basics, now you need to put this knowledge into action.....

For starters we suggest that you attend as many WRRRC meetings and events as you can. We're a friendly group and you'll probably learn a lot just listening in on the chit chat. There's a wealth of knowledge and experience spread out among our membership.

If, though, after you've gone over the text again, gotten on Google, or studied that rig manual for the umpteenth time

and your still confused - well, don't be bashful. After all, the only dumb question is the one that didn't get asked.

Check out our WRRRC Elmer Listing and don't be afraid to ask that puzzling question. We are just an email or phone call away!



An Elmer, BTW, is a fellow Ham who is ready, willing, and able to share their expertise on any aspect of the hobby with which they are familiar. For those who are historically inclined, the following is believed to be the origin of the term "Elmer" and is further detailed on the AC6V site <http://www/ac6v.com>

Need help with an idea or how to get started?

Elmer? Who's that?

The term "Elmer" was invented in the early 1970s (1971, I think) by Rod Newkirk, W9BRD. W9BRD was a radio dispatcher with the Illinois State Police. One of his co-



workers was Elmer "Bud" Frohardt, W9GFF, now W9DY. I've only met W9BRD once, but I've known W9DY since 1968. Bud was very well known locally for his involvement with the RAMS (Radio Amateur Megacycle Society) radio club, and he was always helping newcomers to the hobby. So when Rod Newkirk started writing about Elmer in the "How's DX" column in QST, he was writing about his friend Bud. I saw Bud quite recently and asked him to re-confirm my recollection that he was the inspiration for Elmer, and he did.
73, John, K9MM

Cannot find the answer on the web and need assistance?



West River Radio Club

Check out our web site for more information, web site links and contact information. If you don't find it there, ask an Elmer!!! We are there to help you resolve that sticky problem stopping you from obtaining your goal.

Visit us at <http://www.westriverradio.net>

