Scuttlebutt

February 2006 **Issue 182**

NEXT MEETING: - Saturday - February 4th - 1- 4 PM
Quality Inn, Vernon CT

Captain's Cabin

Mark Pride, K1RX mpride@us.ibm.com

The deadline for the CW scores of the CQ WW Contest 2005 is January 15. So, I may be a bit premature in some breaking news, but what the heck – The Yankee Clipper Contest Club has regained the title of Top Large Club Winner for the CQ WW 2005 contest! Data has been exchanged with the Frankford Radio Club via email and the following can be reported (unofficial results): YCCC total combined SSB and CW score is 301 Million where the FRC is at 278.3 Million.

Fantastic News! But you know, it will still come down to the UBN's making this all go away. I can only hope our membership did its utmost to insure the best quality log submittal by reviewing for the obvious things that can turn up in the Cabrillo file like double entries, typo's, wrong notation of the YCCC or not listed or any number of silly mistakes that could ultimately cost us the victory (recall K1DG's Extreme Makeover presentation)! But regardless, I thought the approach of just getting everyone into the seat for as long as possible for each contest would bring us this sweet victory! I think it should now be stated, it worked! I can not thank you enough for all your hard work, persistence, patience and just that "hanging in" effort to generate a valued score for us all!

CQWW-DX Score Breakdown

	YCCC	FRC
SSB	128,905,187	136.0M
CW	172,097,108	142.3M
Total	**301,002,295**	**278.3M**

When I assumed office of president of the YCCC, I had considered the many ways to motivate the membership to regain the top spot among large clubs in the CQ WW – prizes, awards, mugs, team competition, special recognitions, etc. and this is still top of mind going forward but as for myself, it has always been just plain FUN to prepare, operate and maintain a station for the contest. The 2005 officers did put in place a fantastic awards program that we all can be proud of (thanks Brian, N1IK) and consideration is being given special recognition for those select individuals that went above and beyond to help the club, others and themselves to further our success. If you have a story to share about how someone in the club did much to help in such a way, please contact me – I would like to believe I know everything that is going on in the YCCC but this is impossible! (As I just discovered over the weekend at the YCCC meeting at the Ham Radio University in NLI – more on this later)

Is the YCCC meeting your expectations? Interesting question. From a large club perspective, I would have to say in this last round of contests (CQ WW), you certainly met the YCCC's expectation to place #1 in the Large Club Competition! But what about the YCCC fulfilling your needs in contesting? Are you getting the operating help you need (learning new skills, tricks of the trade), are you able to reach out to others, build new relationships with this common interest, is the YCCC sufficiently motivating you to drive for a higher score, try some new antennas, equipment or build a project that will make things more fun during a contest? Do you think the YCCC needs to do more for you or are you just happy to be associated with the BEST contest club and get plenty of support? You have lots of resources to draw from – YOU – the membership sports an array of talent unmatched by many. One must recognize that all the work that is done on your behalf comes as a result our common interest in contesting and it comes from many volunteers doing lots of work behind the scenes to keep things moving! Thanks to all those unsung hero's and they want us to succeed! When I assumed the Presidency, I really did not have a full view of the challenge of the position but despite the hidden challenges, it really has been a great experience and it is nice to have so many talented individuals to help prop you up when it's needed! (sounds like a swan song doesn't it? – nope, I am here for the duration). I would like to see in upcoming issues of the Scuttlebutt, content that addresses the needs currently not being met (if there are any). How about addressing antennas for small lots (say 50 X 50 ft) and come up with a 160/80 M antenna design for that? How about the Little Pistols column – addressing their motivations, challenges, education? Any interest in a Big Gun

column? Certainly there is knowledge that can be shared across the membership. As with everything we do here, we need volunteers to fill these slots. Please step up and help us!

Next up – ARRL DX Contest February 18/19 and March 4/5, 2006

Now is the time to prepare for these fun weekends - Our next General Meeting is February 4, 2006 in Vernon, CT (same location as the December meeting).

Best wishes in your contesting goals in 2006! I love being with a world class organization!

Mark, K1RX

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The editorial deadline for the Scuttlebutt is the 10th of every odd month.

Flotsam & Jetsam

Barnacle Jack Schuster, W1WEF **w1wef@arrl.net**

Ahoy Maties!

On this 10th day of the year, it's warm enough to do antenna work! It's supposed to hit the mid 40's today here in Connecticut. In fact I already did some and it's only 10:00 AM. I decided that this year, instead of using the ladder on the back of the RV for an antenna as I have for a few years, Ill bring my Hustler 6BTV along and put it up when we stop at a campground. I have it stored in an 8 ft length of 4 in plastic drainpipe, with end caps, and have it broken down into four pieces which can be put together in five minutes. I can put a stake in the ground at a campsite and clamp the mast to the stake, if we'll be staying there a few days, or can mount the antenna on the lower half of a bicycle rack mounted in the trailer hitch carrier on the RV. This morning I rerouted the coax that used to feed the automatic antenna tuner to the base section of the Hustler. When I put it up to use at a campground, Ill lay out precut radials with a copper alligator clip to quickly attach them to the base.

Tom Frenaye, K1KI passed this along. One of his ops asked if they could have multiple WX0B controls so could have one set at each station, i.e. can they control one StackMatch with two different control boxes? Jay's reply(WX0B) :" You can wire them in parallel, but would then have to turn one control box to one of the unused positions so all of the LEDs go out. This is the "full stack" position where all of the antennas are connected and the relays are de energized"

Speaking of Jay Terleski, I'm not sure I ever mentioned his piano playing in Dayton last year. He and N5AN sat down at a piano outside the door to the contest super suite, and improvised words (contest related) to accompany some fantastic piano playing. (Doug…you ought to try to get them to do a gig in the contesty forum!)

George Harlem, W1EBI recently finished installing his Hy-Power triband loaded dipole for 160-80-40, an inverted V with the apex at 65 ft, just in time for CQWW Phone. K2KQ had mentioned previously that he was using the same antenna. George got off to a good start with his first 160 contact being KH7X on one call. He didn't expect that kind of result, but had never been on Top Band before, and put it up to be able to pick up a few more mults on 160. He figured the antenna gave the club an additional 19,869 points with just 8 Qs , 4 zones, and 3 countries.

Chet Slabinski, N8RA, sent this in: My tailtwister rotor had developed a dead spot. If it was stopped in a certain direction, sometimes it could not start turning again. I could hear the brake lifting with a loud clang so I didn't think it was a jammed brake. After bringing it to the ground and opening it up, I found that the problem was that a couple of teeth on the large ring gear had cracked off and adjacent teeth were ground down. This rotor has been in service for about 20 years now, and usually left pointing toward Europe. Getting a replacement gear was easy. Hy-Gain now has online parts list and ordering. A new ring gear was $10 and arrived in about a week.

A few other notes from this project:

The T2X and Ham IV rotor and analog control boxes are interchangeable. In my case I had also standardized on wiring and connectors, so it was easy to swap out the T2X that needed repair for a presently unused Ham IV.

The Hy-Gain website also has their owner manuals online. But I noticed that the new T2X and Ham IV manuals do not have the disassembly/re-assembly sections that are in my old paper copies. If you ever want to take one apart, ask someone for a copy of the older pages, they make the tear-down and re-assembly much less daunting. Hy-Gain is offering a brake delay pcb to add to the control box for those that have not built their own. It is pricey, but convenient.

It was a gusty, windy day when I took off the T2X. But I had done the wind torque compensation of the large interlaced 4element 15/5 element 10 antenna, and it had little tendency to windmill in the gusts. It was no problem to twist the mast by hand to point the antenna in the right direction before tightening down the clamps on the replacement rotor. This wind compensated antenna also means that the Ham IV will have an easy time turning this antenna. And, mast slippage should be a thing of the past.

One station upgrade at W1WEF was the recent replacement of a 17 in computer monitor with a 19 inch. In the process of raising the shelf above it to make room, it became necessary to use my sawzall to cut a drywall screw. While I was trying to avoid removing everything from the shelves while doing the work, (especially the heavy amp), I didn't give a second thought to the vibration induced by the sawzall, and discovered afterwards that my beloved Daiwa CN720B crossed needle SWR meter was ruined, and parts (like a new meter) were no longer available. The good news is that the amp tube is fine!

The other day I had the pleasure of having coffee with a YCCC member I hadn't met before, and couldn't really say I recognized his call from my many contest logs. What I learned was that he is a regular at a Club multi, and it made me think that somehow we should give more recognition to ops like him who contribute regularly but don't get the call recognition they deserve. Not sure what the answer is. Maybe I should just pay more attention to the op lists at the bottom of the page.

Speaking of coffee, I have long been an early riser and enjoy going to the coffee shop at 6:30AM to read the paper and meet a few non-ham friends who have the same habit. They all know I'm a ham, and one of my good friends who I meet there just happened to mention recently that Samuel FB Morse was one of his ancestors! You never know who you're having coffee with.

73 Barnacle JACK W1WEF w1wef@arrl.net for your input!

SO2R ON A BUDGET

Ed Sawyer, N1UR

I got back into ham radio and contesting in 1997. My original rig then was a TS530SE and wire antennas, in Michigan as K8EP. As a Low Power, wire antenna contester who wanted to be competitive, it didn't take long before I felt I had approached "maxing out" what I could do with antennas (although I have to say what many YCCCers are doing with wires is far superior to what I had at the time). As I read about all the SO2R set-ups and how much advantage it was supposed to give you, my attention turned to that around 1999/2000, number 8 LP being the best I had scored at that point.

Essentially, I got into SO2R as a natural extension of doing anything else to maximize my score. You could add operator skill, antennas, amplifiers, better radios, etc. to that mix. I chose not to add amplifiers because until I got to a competitive antenna farm I knew that I would never be "in the box", consistently, with just an amp and mediocre antennas. Today, I have the antennas to a large extent but I really enjoy the strategic mix of low power contesting. There is a 220V stub at the shack should my mood ever change….

SO2R really requires a basic approach at its most simple form. It is the ability to operate 2 radios essentially at once in various stages of the contest. To do this at a minimally effective level, it requires you to be able to listen to 2 radios at once in one set of headphones, have a reasonably effective manner of switching back and forth between the 2 radios to transmit, and to have some kind of antennas and isolation so that the transmitting of one radio does not unduly interfere with the second radio that is listening.

Lets look at each element in its most simple form:

2 Radios: Okay, this may seem obvious but if you only have one radio, then you are going to need a second. Doesn't need to be fancy. A nice used TS830S or equivalent is all you need to start being more effective with SO2R. I would prefer an older tube radio vs. a really simple solid-state radio for the second radio because the rock solid (non overwhelmed) receiver is the most critical component. A radio with that has an on/off switch (or volume) button on the CW side tone is a nice feature (more on that later). I used an IC706 as radio 2 for a time (because I wanted it for mobile and DXpeditions anyway). I made it work but it is not the ideal. The receiver is not the greatest for close in multi radio contest work and the unique characteristics of the microphone input made balancing it with the TS-530 difficult.

Switch Box: Sure you can go and get a DXDoubler like I have now or one of a few other automated headphone/mic/key switchers but you don't need one to enter SO2R as a start. Or you could build your own eventually, like Dick, WC1M, but I went very minimalist when I started. I built a small switch box that simply had 3 toggle switches on it. The first was a headphone switch. It was simply a SPDT that disconnected the radio 2 from the wired together Y connection of the 2 radios merged into one headphone jack. You either heard both radios or the run/main radio. It is essentially a 2 headphone splitter in reverse. There is no attempt to balance the impedances of the radio audio. Simply adjust volumes on each radio (again, this is minimalist).

For CW, the issue of side tone comes into play. If you have both headphones connected while you are CQing, you just want to hear what radio 2 is listening to, until radio 1 is done CQing. If radio 1 is blasting CQ TEST, this is not workable. Killing the side tone is essential. You learn to use the keyboard more because side tone isn't available easily. Options to use it are to switch it on when needed or sometimes you can hear just enough "static thumping" on radio 2 to use that as the side tone..hi, hi.

The second toggle was a SPDT for the keyer. The grounds were tied together and the L/R of the key was thrown over from radio 1 to radio 2. The third was a SPDT for the mic to go from radio 1 to radio 2. A SPDT is important so that you can disconnect both the ground and the audio. You don't want to have the grounds connected through a metal box chassis either. I have found that if the mic lines are continuous from radio to mic, shielded, and isolated, they will stay hum free. In my case I use Heil Headsets so, I plug a $1/8^{th}$ inch plug into the Heil radio connector, and have a cable with another $1/8^{th}$ inch plug into the switch box. I use shielded cable inside the box from the plug to the SPDT as well as to the "output plug" which then connects to the mic itself.

With this box and TR or CT software, you would hit the space bar for a second radio Q AFTER you throw the toggle switch and you would hit ENTER to log it AFTER you switch it back. Slower and more monkey like, but when you are trying to improve from average LP rates of 30/hour across a contest, very very doable. I have not used the other programs in SO2R mode so I can't comment. I personally use TR Log and really like it but with CT now available as freeware, I would recommend that over TR Log as a start, just because of price.

Antennas: Any possibility to bring all of the antenna coax into the shack so that all of the antenna choices are available in the shack is the most desirable (remotely with a 2x6 type arrangement or hard wired with all of the coax just coming into the shack). If you already have some choices of antennas on some bands, then your antenna switching could be as simple as throwing a radio A/B switch onto the coax with a tribander and having a few other antennas available to have the coax quickly

swapped behind the radio (when you start transitioning to night work for instance). One of the keys to SO2R is to have a "decent" antenna on radio 2 for a mult or needed Q without screwing up the CQing rhythm too much. I would advise against SO2R if the second radio is connected up to low dipole or typical small multiband vertical. To make it effective, you NEED to have your best antenna available to radio 2 on 160 – 40 and at least a 2 el wire beam (or small tribander) on 20 – 10. Maybe you already have a second tribander facing south. Fine, make that tribander available to both radios with an A/B switch. Now you can vacuum up all the SA/Carib mults with radio 2 while you CQ away on radio 2 with your main EU antenna. This would essentially limit radio 2 all day to the south (AF/SA/Carib). Not great but a good start. Better is the ability to also pick off mults in EU on a band that you are not running. A couple of 2 el wire beams to EU for 10, 15, or 20 will fill that gap nicely. Just make sure you bring the coax directly into the shack. A one-minute manual switchover from South tribander to 2-el wire beam EU a couple of times a day won't kill you. Personally, for 160 – 40, I would concentrate on a GOOD signal from your antennas on that band and just plan on manually configuring the antennas. Much of the night will be SO1R S & P anyway, but for a couple of hours a night, a 40 and/or 80 CQ run into EU is good to do. When you are ready to do that, pull your other night band antenna away from the coax switch and connect it up to radio 2.

When I first tried SO2R, I put up a 2el wire beam for 10 and a 2 el wire beam for 15 both facing south and at 30 feet. I had a 20M inv-vee as my second 20M antenna (and was never happy with it). I had 3 el beams on 10 and 15 rotatable, and a fixed 4el beam to EU on 20M originally. All of these antennas were individually selectable with coax switch at the shack. I could CQ into EU on 10, 15, or 20 and still S & P on 10, 15, and 20 into EU or SA/Carib. The biggest cost for the SO2R add was the coax since the rest was light rope and 16 AWG wire. I came in Number 2 US Low Power in CQWW-CW in 2003 with this arrangement although I had upgraded to the Dunestar and the remote 2x6 box by 2003 but not done anything more on the antennas.

Isolation for Receive: My advice here is "don't solve a problem that you don't have". If you are running Low Power, you may find that reasonable antenna separation and orientation (try not to have your second EU antenna look through the running EU antenna for instance) may be enough to work many configurations. Set up the radios first and then start to solve interaction/overload problems. If you are using a decent tower and many of your antennas are close spaced, or if you are using higher power 500W+, you will likely need band pass filters. Try using just one on radio 2 before thinking you need to go out and buy 2 sets. I use the Dunestars and really like them. I saved money by manually switching them instead of using the decoders.

So how much are we talking here? Well, like anything, it depends. Software can be free. Manual switchbox is no more than $25.00 including cables and jacks. Antennas are dependent on what you have now but lets say for $250.00 you could add a couple of wire beams, some coax runs, and a couple of A/B switches. One Dunestar will set you back $300.00 so try and find spots (if low power) to place other antennas with a little separation and orientation help. You could do the whole thing for under $1,000 even if you need a Dunestar (nice tower with close spaced antennas) and a second radio (used obviously). Or you could do it for less than $300.00 if you have a second radio and can throw up a couple of new wire antennas in less interfering positions or already have a separated south facing beam. If you have a second radio, just start with the box and the software and play around to see what your gaps are. I'll warn you though, once you work that first mult in between 2 CQ responses, you ain't never going back to SO1R…..

For those of you willing to bite on SO2R, I'll submit an article for the next Butt on strategies for the Low Power SO2R contester.

Ed N1UR

YCCC Web Resources: http://www.yccc.org/Articles/articles.htm

Recent additions:

K1DG's CQ WW Extreme Makeover (Oct. 2005 meeting)

KE1IH's Key's to Successful Tower Installations (Dec. 2005)

K1IR's Star Guy System (for those after the tower has gone up and antenna's installed realization that gee that tower twists alot!) - Highly recommended for those of us that have long boom antennas or many booms! (mentioned in the Q&A portion of the Dec. 2005 meeting)

K1NQ's collection of projects are listed.

Check them all out - good stuff just keeps rolling that makes the YCCC standout among the larger organizations supporting the growth of contesting in the Northeast USA!

(Dave Pruitt, K8CC wrote many interesting articles in NCJ started with the earliest issues. The following includes one of Dave's clever designs to select any one of three beverage antennas without need for a control cable. - Jack Schuster W1WEF)

Practical Beverage Hints

By Dave Pruett, K8CC

(Originally printed in Jan/Feb 1988 NCJ, reprinted in the Jan 1992 "20th Anniversary issue of NCJ)

At this point of the sunspot cycle, the low bands are crucially important in all-band DX tests. After the CQWW CW last November, it was apparent that improvement in my low band receiving capabilities would be very useful. So I chose to pursue a system of Beverage receive antennas for 80 and 160 meters. Over the years, I have known many people to put up Beverage antennas - some of their systems were worthless, while others seemed to invest their owners with magical receiving capabilities. At K8CC, I hoped to achieve the latter status by careful planning and sound engineering.

I began with careful research, reading every article I could find in my magazine archive which offered specific information on Beverage systems. In addition, I talked to fellow contesters K5GO, W8UA, N4AR and K3LR, who offered their insights and experiences. My design owes a debt of thanks to all of the above, for it enabled me to build a system that worked from the first time it was connected.

The first Beverage questions are: how long and how high should the antenna be? It *is* possible to make a Beverage too long, because as the length is increased beyond a certain wavelength, the efficiency decreases. The prevailing opinion is that 500 to 1500 feet is best. The shorter lengths seem to favor 80M, while the longer lengths might be better on 160M, although W8UA has had good success with a 350-foot Beverage on that band. Height seems to be a concern of antenna supports more than anything else. Common sense would dictate high enough to walk under, up to about ten feet. At K8CC, the Beverages are about 500 feet long, constrained by the available space in the Europe and South America directions. They are supported by trees and underbrush, hence are about six to eight feet off the ground.

Beverages exhibit feed-point impedances of approximately 500-600 ohms, the exact value depending on height, soil conductivity, etc. Direct feed with 50-ohm coax is possible, but there will be around 20 dB of signal loss due to impedance mismatch. Matching the antenna to the feed line can be done with a tuned network (Pi or L for example), which limits the antenna to the band the network is tuned for. A more useful method is an untuned transmission-line transformer, to allow the Beverage to be used on several bands. However, W8UA's first transformer, which was wound on a small receiving-type toroid, would only work down to 40M! He subsequently rewound it on a large ferrite toroid of the type used in KW baluns, which made his Beverage come alive. Armed with this clue, I set out in search of a more economical and compact alternative, and in the process learned a little more about transformers and ferrous cores.

These transformers work due to the mutual inductance between the primary part of the winding and the secondary part. To achieve this, we use a coil form with high *permeability,* and by winding the coil with quadrifilar or trifilar windings. Powered-iron cores typically have insufficient permeability to work on 160M. Look for a ferrite core with a permeability of 125 or higher (61-mix material) and physically large enough to allow sufficient windings on the core.

I ordered an FT114-61 core from RADIOKIT for 68 cents, which has an ID of 0.748 inches. A trifiliar-wound transformer has a 9:1 impedance stepup, which nicely matches my 75-ohm RG-59 feedline to a 600-ohm antenna. To make the winding, I had some 4-conductor ribbon cable (Radio Shack 278-757) from which I stripped off one conductor. The solid wire ribbon cable made it easy to wind the 14 trifilar turns on the FT114 core, while the color-coded wires made hooking up the windings a breeze. The end of the first winding is connected to the beginning of the second, and the end of the second is connected to the beginning of the third. The Beverage is connected to the end of winding three, with the low impedance tap at the junctions of windings one and two (see diagram).

After building your transformer, it is a good idea to check it on the workbench to guarantee it will work on the bands of interest. The best way to check it is with a noise bridge - if you don't own one, it is my advice to either buy one or cultivate the friendship of someone who owns one. Connect a 560- or 620- ohm resistor from the Beverage end of the transformer to ground, and connect the **UNKNOWN** port of the noise bridge from the feed tap to ground. The noise bridge should show a nice null at an impedance which corresponds to a 9:1 impedance transformation from the load resistor you put on the output. If the noise bridge shows a low impedance (less than 50-75 ohms), than either your toroid has insufficient permeability or you need more windings on the coil. I tried several designs using toroid cores of dubious permeability with little success. Most had no trouble on 40M, but until I got the 61-mix cores, they were unusable on 80M. Even with good cores, the ON4UN design in his 80M DX Handbook was only good to 80M - but it only had 5 windings in the coil. My design appears good to the noise bridge from 160M through 40M, and has been proven in the field.

Now that you have an antenna 500 to 1500 feet long, and an appropriate matching transformer, you are all set - almost. It is very important to provide a ground at the Beverage feed point for your feed line and matching transformer. A ground rod is

beneficial, but what you really need is some radials. These need not be 1/4 wavelength long - experience has shown that a few 15- to 20-footers are sufficient. At K8CC, I had three 66-foot pieces of wire left over from an ancient 80M vertical project. Since I was pressed for time (this was the Friday of ARRL DX CW), I attached two together to make a 160M 1/4-wave radial and the third piece as an 80M radial. It seems to work, but undoubtedly there is room for improvement. If you decide to make your Beverages unidirectional by terminating the far end with a 560- to 620-ohm resistor to ground, add a similar number of radials there also to make the termination work correctly.

So now you have an antenna, a matching transformer, and a ground system, all the requirements to make a Beverage receiving antenna. At K8CC, since all my Beverages were to be fed at a common location, I decided to use some relays to remotely select the desired Beverage. The control system developed is shown below.

The top diagram is the schematic for the control box, which is at the rig and allows the operator to select one of three Beverages (Northeast, South, or West). The three-position switch superimposes 60-Hz ac, positive dc, or negative dc on the feed line through the 1-mH RF choke. By superimposing the control voltage on the feed line, there is no need for separate control wires. A 0.01-uF capacitor keeps received RF out of the power supply, and the other 0.01 uF capacitor isolates the control voltage while coupling the received signal onto the feed line. The 47-ohm resistors are a crude way to allow two receivers to use the Beverage without one loading the other (a suitable RF splitter would be an improvement which will be pursued). One fuse protects the ac primary of the transformer, while the other protects the power supply in case the coax should accidentally be shorted (in which case the indicator lights will not work, so the operator will know to replace the fuse).

The lower diagram is the remote switching box that contains the Beverage matching transformer, antenna selection relays and supporting components. The relays are general purpose 24-V dc DPDT types (Potter & Brumfield KA11DG or similar). In position 1, the control voltage is ac, which causes both relays to pull in. In position 2, the control voltage is positive dc, which causes the right relay to pull in. In position 3, the control voltage is negative dc which causes the left relay to pull in. When the control voltage is off, both relays are open, which grounds the feed line. The 0.01-uF capacitor and 1-mH choke couple the transformer to the feed line while isolating the control voltage to the relays. The 10 uF electrolytic capacitors act as filters for the control voltages, but might not be necessary.

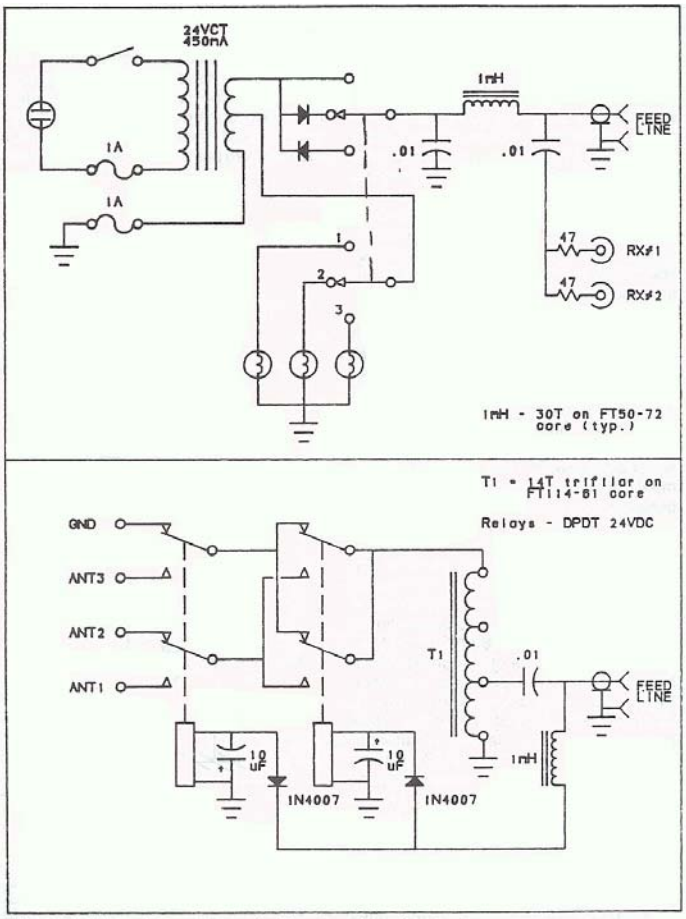

Figure 1—Three-Beverage control system. Top, in-shack control box; bottom, remote antenna selector. No control cable is required because the control voltages are routed along the coaxial cable.

A couple of construction hints: Beverages are prone to accumulating static electricity, to the point that N4AR says he has burned open #28 wire used in the matching transformer. The recommended ribbon cable is PVC-insulated solid #24 which should hold up well. The relays at K8CC have 10-A contacts and are wired to minimize lead lengths. All diodes are 1000 PIV @ 2.5A - they are overkill, but are not much more expensive than cheap 50-PIV ones, and should be more resistant to electrostatic trauma. The 1-mH RF chokes are 30 turns of #28 on an FT50-72 toroid core. I made my own chokes because 1-mH chokes that can handle 250 mA of relay current are not common and it was a cheap (50-cent) solution. One note on the feed line at K8CC - I had to splice two pieces of RG-59 together to reach from the house to the control box. CATV "F" connectors made an inexpensive splice easily waterproofed with some of that nasty Coax-Seal gunk.

But how does it work, you ask? For the 1987 ARRL DX Contests, I only had unterminated Europe and west Beverages installed. On CW, the system worked well on 160M, and very well on 80M. It proved to be very valuable on 40M while running EU with a 2-element fixed quad for transmit. On SSB, we seemed to hear as well or better than the other contest stations from this area (working EA9, VK, ZL on 160M). If nothing else, having Beverages for EU and the Pacific spoiled us for not having one to South America but that is a project for this summer….

(*Thanks to NCJ)*

YCCC Meeting – January 8, 2006

(held during the NLI's Ham Radio University event)

Our NLI YCCC team was well represented at the meeting in Bethpage, NY on Sunday, January 8 with your president, Mark, K1RX presiding. There was limited business conducted – mostly announcing the unofficial win by the YCCC over the FRC in the 2005 CQ WW DX contest! New member applications were provided and a shortened version of the now famous, K1DG Extreme Makeover presentation was conducted. Lots of lively discussion followed regarding how the YCCC could help this small outpost. And on behalf of the YCCC, I extended thanks to all those that helped the YCCC win the CQ WW contest by the scores provided from the region. The meeting was called at 3:30 PM Sunday, January 8 that included general details about the YCCC and our many benefits to membership. The meeting was adjourned at 5 PM. The following new members were voted in:

K2LS, Larry Strasser (returning member) Application/dues received during meeting.

N2ZN, Ken Boasi

K2IZ, John Smale (Application & dues to be sent under separate cover)

Attending were: K2LS, AA2MF, NY6DX, N2YBB, N2MUN, NA2P, KA2D, AB2IZ, KB2RIZ, and K1RX (and earlier in the day, K1ZM presented WRTC details)

My trip to NLI was interesting as I had never taken the Cross Sound ferry. Left New London, CT at 3 PM on Saturday and arrived at Orient Point at 4:15 PM. Fortunately, smooth sailing and driving the eastern end of LI enlightened my taste buds for the grape – I have never seen so many wineries along the route. Reminded me of Napa Valley California! A very pleasant journey indeed and kept thinking what an incredible radio location – flat terrain, water on 3 sides, looks like a great place for contesting!! Any winery owners interested in a few towers to compliment the grape growing?

What a great idea doing a Ham Radio University (7th year) – 25 different forums, all very interesting topics for the new and the old timer in amateur radio. Congrats to the NLI hams for doing such a great job organizing this event, in particular, George, N2GA for twisting my arm to attend! Thanks!

Mark, K1RX

W3SM K1XM W1WEF K1HI K1NQ K2TE W1JQ

Barnacle Jack (W1WEF)

K1HI K2TE K1XM

Regular Meeting
December 4, 2005 - Vernon, CT

Mark K1RX called the December meeting to order at 1:31pm at the Quality Inn, Vernon, CT, north of Hartford. Mark's new favorite ice-breaker, the "Eyeball Phone Sprint", was again employed to get the 34 attendees warmed up by giving their names and callsigns to another member, then QSYing at least five feet left or right and meeting another attendee. Since no logs were kept, all were considered perfect "golden" logs.

George W1EBI gave the secretary's report. YCCC membership as of December 1st stands at 351 voting members. Another 21 "Friends of YCCC", affiliated members receiving Scuttlebutt but whose QTH is outside the 175-mile circle, bring total active membership to 372. The minutes of the October regular meeting as published in Scuttlebutt were accepted and recorded.

Ed K1EP gave the treasurer's report. Total account balance at November 1st was $12,357.08.

Mark received a note from K3WW, FRC's scorekeeper, that preliminary results for FRC looked like about 136 million points in CQWW Phone and about the same in CW, for a potential total of 272 million. Input from YCCC scorekeeper, Dave K1HT, indicates we are at around 282 million for both modes. A delta of 10 million is too close for comfort, according to Mark, and he asked that all scores, no matter how few points, be submitted before the log submission deadline.

Brian N1IK has completed the first segment of the new YCCC Awards Program. Brian gave out club awards, in the form of classy certificates suitable for framing on the shack wall, for CQWW 2004. Awards for up to ten spots in each of six categories—M/M, M/2, M/S, SO(A), SO HP and SO LP—were presented for both CQWW Phone and CQWW CW, for a total of 85 separate awards based on published final scores by CQ Magazine. Brian admitted that the award list did not include YCCC ops on DXpeditions or SOSB scores, and he will add those award winners in the next iteration.

Jim K1IR gave an update on the recuperation of Krassy K1LZ. Krassy communicated to the club his gratitude for the generosity of those members who contributed to the Krassy Fund following his accident while part of the CY9SS team, and chose to contribute the entire fund amount to YCCC to be used as part of the club's treasury designated for scholarships and school programs.

Dave K1NQ announced that he was planning a quantity buy of some custom printed circuit boards for YCCC members. One is a stack controller. The second is a 4-square controller from the ARRL Handbook that customizes power distribution and phasing based on specific configurations of vertical elements and radials. Dave is also contemplating producing a 2x6 switchboard designed by Ron KK1L. Dave may add a bandpass filter board in the future that would be remotely controllable via a band decoder or manually. He is looking for some volunteers to assume the jobs of coordinating the ordering and kitting of boards and components.

The main presentation of the meeting was "Key to Successful Tower Installation—Understack and Overguy" by John Corini KE1IH. John went into great depth on the subjects of self-supporting towers as well as guyed towers, including pre-tensioning of guys, periodic retensioning, guy thickness, the importance of mast length, tower deflection vs. tower height, fixed base vs. pier pin base, elevated guys, and hardware store vs. specialized bolts. As expected, the subject of towers generated a buzz of Q&A and exchange of opinions and experiences following John's terrific presentation, which was well illustrated with PowerPoint slides.

The meeting was adjourned at 4:10pm.

Respectfully submitted,
George Harlem W1EBI
Secretary

Movers and Shakers:

New Crew	N2ZN, Ken Boasi
	K2IZ, John Smale
Returning Crew	K2LS, Larry Strasser
SK	K1LOM, Seth Horen (YCCC 1997-2000)

RTTY - Another Mode, Another Opportunity to Excel

On a recent trip to Texas with my work, I threw in a few old QSTs for some reading on the trip. While I read the results from the 2005 RTTY roundup I noticed that there were only 9 YCCC entries. There were only 5 from FRC but that doesn't matter.

At the last meeting, the YCCC awards program was brought up for discussion and some potential awards were announced. Not one was for RTTY.

I know that the major focus of YCCC is the butt kicking of FRC in the big 4 contests but I would like to get some ops going in RTTY contests.

RTTY contesting is fun and easy, I would be willing to bet that everyone in the club has almost everything needed to get into RTTY contesting. All that is needed is a computer with a soundcard, some interface between the radio and computer that can be just a straight cable, but I do not recommend that approach, and some software to run it. I use the N1MM logger that many club members use already, and MMTTY software that can be downloaded from http://mmhamsoft.ham-radio.ch/mmtty/.

N1MM logger has a method of using the MMTTY engine so its use is seamless to N1MM users. MMTTY is a great package that like N1MM is freeware.

The RTTY contests are fun, active and a great way to get DXCC and WAS on a new mode. I recently received my WAS on RTTY and got the serial number of 404 whereas I got my SSB WAS back in 1994 and had a number over 45000. I am not too far away from my DXCC RTTY award, and I have several countries on my overall DXCC list that I only have on RTTY.

I did play a little in the CQWW RTTY contest a few weeks ago and there were some YCCCers out there but not as many as there could have been.

RTTY is a fun mode that has been around since the 1940s but has evolved away from the loud, heavy old clackers that were used a long time ago. Gone is also the need for a separate interface, such as the PK232 etc. that were needed a few years ago. These interfaces can still be used, however the soundcard interfaces are a smaller/cheaper way to go.

The RTTY contests are not all DX contests as even the CQWW RTTY DX contest allows points for states as well as DX entities. My favorite however is the ARRL RTTY Roundup in early Jan.

I have not been a contender in this contest or any others due to N1OZF whom I have to tag team with. In the 2005 RRU I had 246 Qs and Mary had 199 Qs. Since we tag team it, we loose a lot of rate by taking turns. I am not complaining, as I know a lot of members have wives that are not enthused about ham radio or contesting. Anyway there is something nice about hearing the deedle deedle of a RTTY call. Unlike CW or SSB you cant know who is calling until you decode it with the software. I have heard of someone that could decode his call in his head however I have never met anyone that could. So use this info however you like. A wake up call to a new mode. A challenge from a little dart. (I used to think of my station as a little pistol but after the NA2NA description, I am a little dart). A friendly reminder that there is life after CW and SSB and maybe you could try something else.

Another way to KICK BUTT on the FRC guys. So park your butt in your plastic lawn chair or what ever kind of chair that you have and deedle a little. You might find out that you like it. Remember to always turn your power down, as most radios don't like 100% duty cycle signals for long.

73 and see you on the bands.
Barry Whittemore
WB1EDI

Upcoming RTTY Contests

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CQ WW RTTY WPX Contest            0000Z Feb 11 to 2400Z Feb 12
North American Sprint, RTTY       0000Z-0400Z Mar 12
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YCCC CLUB RESOURCE INFORMATION

DUES AND MEMBERSHIP STUFF Dues are payable as of the April election meeting, which begins our club "contest year". The YCCC has adopted a multi-tiered membership format as follows: Please note that payment of dues IS NOT a prerequisite for contributing scores to the Club aggregate, but IS for the various YCCC Awards Programs

Full Member - $20 (Eligible for YCCC awards programs and paper delivery of Club newsletter)

Full Member - $15 (Eligible for YCCC awards programs and electronic "Ebutt" delivery of Club newsletter)

Family Member - $0 (Grants full membership to all amateurs residing at one domicile on payment of one member's "Full Member" annual dues and entitlement to one Club Newsletter sent to one domicile or email address. All members of said family are eligible for YCCC awards programs.)

Student Member - $10 (Grants full membership to students at a reduced level. Eligible for YCCC awards programs and paper or electronic delivery of the Club Newsletter.)

Subscription - $** (A "friend of YCCC" - not a member but a possible candidate for future membership. Receives club newsletter only in paper or electronic form. Fee basis is $20 for overseas paper delivery, $15 for domestic paper delivery and $10 for electronic "Ebutt" delivery domestically or overseas.)

Club members who move out of club territory and so are not eligible to contribute to club aggregate scores automatically become subscribers. New members who join at the February meeting are credited with dues for the year beginning the following April. You can tell if you owe dues by checking your 'Butt mailing label. **Mail your dues to the club treasurer, Ed Parish, K1EP, 9 Spoon Way, N. Reading, MA 01864**

SCUTTLEBUTT ARTICLES should be sent to the Scuttlebutt editor, Steve Rodowicz N1SR, preferably by E-mail at **n1sr@arrl.net** or on 3½" disk (in MS-Word format or text file) by snail mail to Steve Rodowicz, 809 Pendleton Avenue, Chicopee, MA 01020. The deadline for each issue is the 10th of the preceding month. **CONTEST SCORES** should be sent to the club scorekeeper, Dave Hoaglin, K1HT, preferably by packet or by E-mail at **dave_hoaglin@abtassoc.com** . Please include details such as numbers of QSOs, QSO points (if appropriate), and multipliers (all types); entry category; and power.
Advertising in Scuttlebutt: Nominal Business Card sized ad, $50 per year (6 appearances)

CLUB GOODIES

BADGES YCCC badges are available from Ric, KV1W. Send $2, name and call desired on the badge, and your mailing address to: Ric Plummer - YCCC Badge, PO Box 1158, Berlin, MA 01503-2158.

APPAREL Contact Bob Rogers **KB1LN@yahoo.com**

YCCC LOGO ITEMS http://www.cafepress.com/n1ik

QSL CARDS are ordered through Burt Eldridge, W1ZS. To order, send Burt an email at **eldr@adelphia.net**, detailing card information per "QSL Request" form available at http://www.yccc.org/members/yccc_qsl.htm. You will receive a proof by email. Approve the proof, making any corrections, and return to Burt *with payment* (make checks out to Burt, not YCCC). Current price is $35 (delivered) for 1,000 cards.

MEMBERSHIP ROSTER is posed on the YCCC website. Updates are published in 'Movers and Shakers' when members move or change callsigns.

COMPUTER STUFF *INTERNET REFLECTOR* There is an Internet mailing list for YCCC members. To subscribe, send mail to yccc-request@yccc.org. Include the word "subscribe " in the body of the mail message. (Do not send messages to the reflector that have file attachments, HTML formatting, use boldface or other fancy fonts, etc.)

WWW HOME PAGE Come visit us at http://www.yccc.org Our Webmaster is Mike Gilmer, N2MG.

ADMINISTRATIVE STUFF *The W1 QSL BUREAU* is sponsored by the YCCC. Keep your account up to date by sending a check. Stamps are sold at face value, envelopes are 20 cents each. Address: W1 QSL Bureau, PO Box 7388, Milford, MA 01757-7388. Email address: **w1qsl@yccc.org**.

PACKET NETWORK information is available from Charlie Carroll, K1XX, Candlelight Rd., Rindge NH 03461.

ARRL COMMITTEE REPS are**:**

CAC:	**New England** Dick Green, WC1M	**Hudson** George Wilner, K2ONP	**Atlantic** Rus Healy, K2UA
DXAC:	**New England** Jim Reisert, AD1C	**Hudson** Angel Garcia, WA2VUY	**Atlantic** Tony Gargano, N2SS
ARRL LIAISON:	Tom Frenaye, K1KI.		

Upcoming Meetings

Date	Type	Place
February 4th	General	Vernon, CT
April 8th	General	TBD

Next General Meeting of the Yankee Clipper Contest Club

Saturday, February 4th – 1:00PM - 4:00PM

Quality Inn, Vernon, CT

Get On The AIR!

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ARRL DX-CW    0000Z Feb 18 to 2400Z Feb 19
ARRL DX-SSB   0000Z Mar  4 to 2400Z Mar  5
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The YCCC Scuttlebutt
177 Upper North Row
Sterling, MA 01564

FIRST CLASS MAIL