

## December 2005

## **Issue 181**

# NEXT MEETING: - Sunday - December 4<sup>th</sup> : 1PM Guyed Tower Analysis - John Corini - KE1IH

### Captain's Cabin

Mark Pride, K1RX <u>mpride@us.ibm.com</u>

There has been a lot of interesting discussion threads that lead up to the CQWW SSB weekend on the YCCC email reflector including a series of "question of the day" topics that produced feedback from the YCCC membership worthy of adding to our Contest Cookbooks archive on the YCCC Web Site (more later). Thanks all for your insightful comments and suggestions.

Our December meeting will be held in Vernon, CT (NE part of the state, just off I-84) and we have a great set of speakers lined up including a featured presenter at this past year's Dayton Hamvention. Am looking forward to another great gathering of the club (over 65 at the last meeting)! And speaking of club gatherings, I had suggested early on, that the YCCC might consider developing local chapters that will do much for our overall club goals and create a local feel.

The YCCC has a problem, not untypical of other large clubs – small groups decide to form a local club and start competing at that level (Small/Medium size clubs). This can ultimately lead to a tearing apart of the larger group. Of course the officers are looking to maintain your high level of interest by having interesting topics at meetings, raffles, sponsor internal and external awards and be a REAL CONTESTER's resource to grow in this aspect of the hobby. But what about the concept of the YCCC Chapter organization? Smaller groups or chapters can be formed for the local flavor but can also draw from the great resources of the entire group (email reflector, Scuttlebutt, group buying power, etc.) and all feeds up to the larger goal of winning the Large Club category and being recognized as a World Class Contest organization. But what is really required to make this happen? We need thought leaders from some of the previously formed local groups and groups that have not been formed yet, to come forward and volunteer to take a role in the process. We need chapter presidents to start the process. The YCCC general meeting(s) can be the annual focal point for the local Chapters to gather, exchange ideas, socialize and enjoy the combined force of the group. The YCCC delivers a great number of resources that include setting the contest agenda in large conventions such as the ARRL NE Convention where we typically see over 100 or more attendees (new and old members alike).

The local chapters would still be encouraged to promote Contest Universities, Dinners, picnics, and on-site technical support for their group and serving as a grass roots way of gaining new members (local presentations to other clubs about contesting).

Local clubs that the officers have cited in the quest to develop a group of YCCC chapters include BARC, CTRI, Boiled Owls, Hudson Valley, and some of the other smaller clubs within the region. I was invited to speak on January 8 at the Ham Radio University on Long Island that will feature a contest forum. It is my intention to schedule at the same time, a local special YCCC meeting that will provide more indepth contest discussion for those seriously interested in growing this aspect of the hobby. Perhaps a NLI Chapter can be formed as result of this meeting. Can I get some help here?

The YCCC officers need your help in making this a reality. Please let me know if you can help in this new important leadership role. Thanks!

Now back to contesting – get in the chair, put in the time you can, note in your summary the Yankee Clipper Contest Club so we can take back the trophy for this season! Review the Awards Program, pick a target and go for it!

73 & KB! Mark, K1RX

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### **Treasurer's Report**

	Checking	CD
Balance (10/1/2005)	6,568.71	6,095.89
Dues and Subscriptions	485.00	
Investment Interest		20.00
INCOME Subtotal	505.0	0
Donation	1,000.00	
ISP (2 months)	40.20	
Meeting Expenses	321.00	
Postage and Delivery	29.60	
Printing and Reproduction	54.00	
EXPENSE Subtotal	1,444.80	
Subtotal	-959.80	20.00
Balance 11/30/2005	5,608.91	6115.89

**Total Balance** 11,724.80 Note: Scholarship/Donation Fund Balance of \$1,181.50 is included in assets above.

## YCCC New QSL Card Manager

I am pleased to announce Burt, W1ZS, will take over the YCCC QSL card. We purchase these cards from LZ1JZ for a bargain rate of \$35/1,000. In the next few weeks, the QSL card application for will be updated to reflect W1ZS as the manager.

In the mean time, I will complete the transaction of our current QSL order. Future orders will be handled by Burt. His email is <u>eldr@adelphia.net</u> Thanks Burt for helping all YCCC members. David Jordan, K1NQ

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\_\_\_\_\_

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### Flotsam & Jetsam

Barnacle Jack Schuster, W1WEF w1wef@arrl.net

#### Ahoy maties!

Hope everyone has had a joyful contest season so far! At this writing, one of the contests I look forward to the most is yet to come. CQWW is only two and a half weeks away. As you read this, it may be behind us, but I sure hope conditions were as surprisingly good as they were in WW phone.

Randy, K5ZD sent this along: "To assist with station reliability, I would always prefer to buy an assembly to do something rather than make a kluge myself. One of the biggest hassles is dealing with wiring connections that come out of a DB9 or DB25 connector. Check out winford.com/products/cat\_brk.php They have a whole line of DB to screw terminal breakout boxes. I use the DB25 with my Top Ten Devices band decoders. Makes the wiring easy and only costs \$25 delivered. The board also has holes for mounting diodes or relays if you need them for your switching arrangement.

The relay boards at winford.com/products/cat\_rly.php are also interesting, but a bit pricey. If they had an 8 relay version for the same price, I would get one and use it to have the band decoder drive all of my relay switching."

Barnacle Jack recently parted with his ancient first PC bought for \$1500 in a YCCC club deal that about eight of us took advantage of. The next day after throwing it in the dump, I happened to be back and a guy was there pulling the drives out (I trashed the hard drive), and I had to ask him what he wanted them for. He was after stepper motors in the drives that could be used for robotics, and said there were all kinds of robotic projects on the internet. Interesting!

When I needed my MFJ 259B for an antenna project recently, I found I had to replace the TEN AA batteries. I never took MFJ's advice to remove the batteries in long periods of dormancy. Since the sticker I had on the analyzer said I had installed new Duracells less than two years before, I wondered if there was a drain on the new replacements even when turned off. I measured zero drain with it OFF, and 180 mils ON. I know that if they just sat on the shelf they wouldn't be bad after two years! Don't understand this.

Reminds me of a recent off topic RV problem I had with the engine battery dying while the RV sat idle. I put in a brand new battery, and two weeks later it was dead. Turns out there was a 300 mil load on it, with everything turned off. Tracing the load by pulling fuses, I found the dimmer switch on the Instrument panel was left on. Although no lights were on, and the ignition switch was off, a relay energized that drained the battery. Before I found the problem, I got on RV.NET (akin to the YCCC reflector), and asked if anyone had ever had this problem. I got all kinds of irrelevant answers, but right after I traced the cause, one guy said "check the dimmer switch". He had a Ford chassis four years older than mine and had the same problem.

Although my phased 4 squares on 80 work OK on CW, they are optimized for 3550 and aren't as good as my dipole on phone. Before WW phone I decided to try a reflector on the dipole which is broadside to Europe, and found two trees in just about the right place. Trouble was there were two other trees in between them. I thought I could get the reflector wire over the treetops by pulling it to the side with one rope while at the same time pulling one end to raise the wire. Although this had worked at other times for me, it was difficult to do without help and didn't work out this time. I guess to do it right I'll have to shoot a string over each tree and go over one at a time. Check the photo of my spooler to let out mason's line after I shoot 8 lb test fishing line over a tree. The stronger mason's line is then used to pull up a rope. The spooler is available at HD or Lowes with 450 ft of line for about \$10.



John, W1FV mentioned a website for info on baluns and verticals. Take a look at w8ji.com/verticals\_and \_baluns.htm Tom Rauch is a wealth of information.

One last reminder this month, especially to newer members. If you don't SPELL out YANKEE CLIPPER CONTEST CLUB on your Cabrillo submissions, the club does not get credit. If you recently submitted a log with "yccc" instead of spelling it out, it is probably not be too late to edit and resubmit.

73 Barnacle JACK W1WEF

w1wef@arrl.net for your input!

## A WIRE 2-ELEMENT 40M YAGI: STILL A WORK IN PROGRESS

#### Michael Loukides, W1JQ

This year, I decided that my major antenna project was going to attack 40M. Although I have lots of big trees, the problems of threading through tangled branches means that it's difficult to get something big up really high. Tom Magera, N1TM, was convinced me that a relatively low yagi on 40 might work. So I decided to see what I could do with a height of 50'.

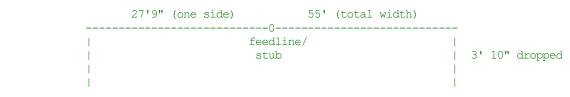
Here are some other design parameters:

- Fed by 50 ohm coax
- Reversible
- Reasonably good gain across the band
- Reasonable SWR across the band (ideally under 2:1)
- Relatively durable

I achieved most of my goals. According to EZNEC, the forward gain is about 10.6 dBi over real ground--that's not fabulous, but remember, the antenna is under a half-wave up. The predicted F/B isn't great, but I figured that my goal was to make myself as loud as possible; if I could do that, I'd worry about the QRM.

I did not use any boom or center rope. The two elements are hung independently. They may not be pointing in exactly the right direction, I admit, or even at the right spacing. But finding slots through the forest that work for an antenna 50' up is difficult, and I had to simplify are radically as possible.

I had to shorten the antenna by "dropping" about 5' on each side. This gave me an antenna about 50' wide, rather than a full half-wave--again, threading the antenna through the forest is difficult, and at 50', I just barely made it. So, overall, each element of the antenna looks like this:



The two elements are identical; the stub (made of 50 ohm coax) turns one element into a reflector; the driven element's "stub" becomes part of the feedline. Spacing between the two elements is supposed to be 24 feet, but playing around with EZNEC shows that it isn't terribly critical.

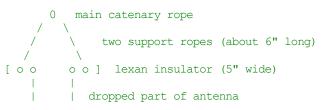
The antenna itself is made of #12 insulated copper wire--two strands, separated by 4" and shorted every 3'10". (There's nothing special about 3'10". I started with 4' sections; after some scaling, each section was 3'10"). Each length of copper wire is soldered to a "shorting bar" made of 3/32 copper tubing that I found in the hobbyist section of the local hardware store. So, each section of the element looks like this:



There are 7 of these segments on each side of the antenna, not counting the final dropped segment. I used a jig (made by Joe Wonoski, N1KHB) made of two alligator clips attached to angle brackets and bolted to a piece of wood to hold the copper tubing while I was soldering. It was a simple idea, but it proved to be a lifesaver.

The (physically) weak part of this design is all the solder joints. I didn't want them to bear the weight of a relatively heavy antenna. So I added a catenary rope to support the whole thing: the catenary supports the corners and the center insulator.

Looking from the end, it's something like this:



The main catenary is essentially a rope "dipole" that's about 2' longer than the horizontal section of the element. Getting the length right is a bit tricky; it's best done at ground level. You want the wires to sag a bit under the support rope. The rope dipole is tied to the insulators supporting the antenna itself using two short support ropes tied to the end of the insulator. This triangular arrangement looks like it's going to be extremely stable. Between the coax weighting down the center, and the dropped end sections (which are tied down to the ground, to keep them from getting tangled or curling up), it's very difficult to imagine the antenna twisting on itself, even in a severe storm. And the main support rope keeps stress off the antenna even in storms. It's already been through 50 MPH winds.

Now, the stubs. A stub with an inductive impedance of 56 ohms gives good performance across the CW band, and good SWR across the whole band--but the pattern falls to pieces in the phone band. An inductive stub of 25 ohms gives great performance in the phone band, but poor performance in the CW band. (SWR is slightly worse in the phone band, but still under 2:1, and poor in the CW band.)

With TLW, I computed various stub lengths that would have the desired impedance. The shortest possible (open) stubs aren't useful; they won't reach the ground, and you'll never change the antenna's configuration if you have to drop the antenna to do it. The next possible length was a shorted stub; the CW stub needed to be .63 wavelengths at the CW design frequency of 7025 KHz (or 58'8"); the phone stub needed to be .57 wavelength at 7225 KHz (or 51'8"). These stubs nicely reach the ground at the design height.

I chose those lengths. To short the stub, which also has to be useful as a feedline, I used a UHF barrel connector and a shorted PL-259. In retrospect, it might have been wiser to go with the next larger stub lengths (in the80' range); that would have made it simpler (forget simpler--possible) to build an automatic stub switching box. However, there's a tradeoff: the longer stubs are lossier.

So you have a 51'8" piece of coax permanently attached to each element, hanging down vertically. You feed whichever element you want to be the driven element. To the reflector, you attach either:

- the shorting plug (for phone operation)
- the shorting plug and another 7' of coax (for CW operation).

All in all, you need two 51'8" pieces of coax, one 7' piece, one shorting plug, and several UHF barrels. Obviously, though, don't just cut blindly: use an antenna analyzer like the MFJ to cut the stubs correctly.

Tuning the elements was easier than I thought it would be. According to EZNEC, the minimum SWR for each element occurs at 7.33 MHz. So, using a 51'8" piece of coax for the feedline, I installed one element at roughly its final height and pruned the end sections to get the minimum SWR to 7.33. Then I dropped that element to the ground, installed the other element, and did exactly the same thing.

Some notes about tuning:

- By itself, each element has a very broad SWR curve. The MFJ analyzer only gives you two significant digits--and, if it gave you more, you'd be foolish to believe them, any way. My technique was to find the minimum SWR (it should be 1.4:1 or thereabouts); find the points at which the SWR jumped up by one digit (i.e., to 1.5:1); and assume that the minimum SWR was in the middle.
- For my antenna, the first element had a minimum SWR of 1.4:1 (exactly in line with the model), but the second was more like 1.7:1.
- If you cut too much, adding wire to this antenna isn't a problem.

When I put both elements up, the resulting SWR curve was just about what was predicted: with the CW stub, 2:1 at 7000 KHz, minimum at about 7100, and just under 2:1 at 7300.

So--does it work? It's clearly an effective antenna to Europe. European signals are a couple of S units better than on my 40M dipole (which is oriented poorly for Europe). More telling, my 40 results in this year's CQWW Phone outperformed last year's by about 20%.

This antenna appears to have very little F/B ratio, but decent F/S. I'm not sure what the F/B problem is; the higher minimum SWR for the second element indicates that its feedpoint impedance isn't what it should be, which in turn means that the stub lengths for that element aren't correct. Of course, many factors affect the impedance of a dipole: branches, leaves, height above ground, ground conductivity, etc. So I haven't yet decided whether to leave well enough alone, or to try to get myself some F/B ratio. Of course, in a 40M phone contest, F/B is all but irrelevant, but that's obviously not the case for CW.

### **CQ WW SSB LOW POWER NOTEBOOK**

Ed Sawyer, N1UR

Its 2 weeks before CQ WW SSB. What are you doing? What I am doing is wondering how to get my 160M signal louder. I am happy with 10 - 40. 80 is pretty good but 160, I feel weak. I have worked a few EU in the last few nights but many just can't hear me. I have 2 antennas: a 160 Inv-L with 4 raised radials and a shortened inverted-Vee off the 70 foot tower. I use 100 Watts. I have decided to add 4 more raised radials to give the Inverted-L more efficiency and have decided to make the 160 Vee a full size Vee. With only 11 days to go and being away this coming weekend, and the weather not providing many dry windows, this is an ambitious plan and will require an afternoon off to do. But with the sunspots lower, I have decided that this is worth the effort right now. It is interesting to note that K1RX is doing the same thing right now and it is arguable that Mark's station doesn't need any enhancement.

Are you on the bands right now? If you were, you would know that 10M has a chance to open to EU and you should be looking for it (I worked a few EU with a 3 el beam up 25 feet last Sunday). 15 and 20 have been good to EU but 20 is closing to EU earlier now and will likely be dead to EU at the opening of the contest. I noticed that I was working EU on 20 at the start of the contest last year and had about 40 Qs to EU in 45 minutes before moving to 40. This year, 20M is going to be Asia and South America and maybe Oceania at the start, which means, as a low power guy, CQing on 20 to start is not in the cards.

But 40 and 80 have been pretty decent. Of course, 40 CQing for SSB Low Power is not likely a good strategy. Unless of course you get lucky and stake out a good frequency before the contest and it survives the turn of the hour when new broadcast stations start to show up. Also, I have found that working Asia, at the start of the contest, from W1 can be a tough haul as EVERYONE needs that JT1 or HS0 mult and most everyone is louder than W1. So my strategy will be to CQ on 80 unless I can find and hold a 40 freq that I like right as the contest starts. If I don't see at least a 40Q/hour rate CQing for 10 minutes I will switch to concentrated S&P to start. If I can hold 40Q/hour, I will S&P on radio 2 (probably start on 20). This is my opening strategy. Plan on CQing way more on 80 than 40. My Qs goal for the contest on 80 is 150 Qs (last year was 96) and 225 on 40 (last year was 165).

I also re-read a few of the write-ups from CQWW SSB 2004 of successful people. Bob, KQ2M, writes on of the more detailed end of contest summaries. I read it again about a week before the contest. 3 things jumped out at me from the write-up:

- 1) He wasn't afraid to go total S&P for a while if runs just weren't making it (even with his world class station) but was back at running 15 to 20 mins later.
- 2) He never missed an hour without having a Q and Mult on 20M. I tend to abandon 20M after a couple hours of checking and hearing nothing but noise in the middle of the night. I vowed to check 20M every hour of the contest after re-reading that.
- 3) Despite feeling like he was a complete wreck on score in the first 12 hours of the contest, he persevered and ended up getting within shooting distance of a new SOAB HP record by the end.

Do you have these kind of strategy plans, know what the bands are like the few weeks before the contest, and have a "quick add" to your antennas going to bring your station up a notch? If not, you should, if you feel that you want to see your score rising and get into that top 10 box or beat your personal best. If you aren't happy with the results you ended up with in CQWW SSB this year, ask yourself "what was I doing a few weeks before the contest?" Then ask yourself "what were people who did well doing during that same time?"

It is 2230Z on Friday evening, 90 minutes before the contest. I left work early this afternoon, have all of my meals/coffee/drinks/apples ready to go. Voice keyer is programmed for the start, everything re-checked. Last night, I got a good nights sleep and allowed myself to sleep as late as I could (which for me was 7am). I tried to get a nap this afternoon but with 9 hours sleep last night, I was just able to rest for an hour (but even that is beneficial).

I will be listening to the bands right up until the start. 20 is open to EU right now, will it last to the start? JA is open on 20 and was open last night into JA until 01Z. If 20 is really, really good, I may do a very fast S&P on 20M for as long as there is rate and I am not making call after call after call to get through. That, or find a little hole on 40M, hmm...this is what makes contesting so fun for me. The strategy is fascinating....

#### Ready to go, are you?

Contest is well under way now at 04Z. At the start 20M was open really well to Carib/SA and there was a lot of activity. JA was nowhere. I decided to S&P 20 at the opening gun. 2 to 3 calls max, memorize anyone I skip that is at least S8. I end the hour at almost 50 rate, equal to last year but no EU this time. Try and CQ 80M a couple times in the 01Z and 02Z hours but no answers. Simplex between 3750 – 3800 is tempting but I think there is so much EU QRM that you won't be heard. Better to go split above 3800 and hope to be heard. I am LOUD into EU on 40M (for those listening split). At 05Z I make my first try at 40M CQing, despite being loud, I get one call in 20 mins. But I am S&Ping 80/160 on radio 2 at having a 30/hour rate so the experiment is worth it to try, in my opinion.

Time for a cup of coffee at 05Z (pre-mixed just hit the brew button) to carry me until 08Z+. I force myself to take my first 90 min nap at 0830Z because rate is down, CQing on 40 (and earlier 80) is going nowhere and I want to be fresh for the sunrise opening here. As I go to bed, I notice that I am ahead of last year in Qs and mults. Pretty good for a start.

20M is just opening as I get up (great, didn't miss much). I am S&Ping 160/80/40 for starters since the early EU on 20M is like a sucker punch for me. One guy always comes back to you first call and the next thing you know 10 guys can't hear you. It always seems that way for the first 45 mins or so even though EU is LOUD. Work some 40M Pacific (very little) but don't hear JA. Keep S&Ping 20 –160 until 15M starts to open. I usually park on 15M into EU and did so this time. Actually had decent runs going. Saw the rate meter over 100/hour numerous times but averaged 60 – 70 for the next few hours running 15 and S&Ping 20/10. Bands sounded pretty good but wicked crowded. 10M opens with a CT1 at 14Z. Hmmm....maybe there's hope. That was the only EU worked all weekend. Lots of SA/Carib all weekend, but that's it on 10M. I never felt LOUD on 10 from up here in Vermont. But I worked just about everybody I heard except for LT1F (bands 15 –80 worked). At the 24 hour turn I had fallen about 100 Qs behind last year, completely on 10M. I was on my goal for 160/80 but did not feel 40 would be attainable because CQing had not worked. But I felt pretty good.

Another attempt at 40 and 80 CQing doesn't work but I keep some rate during the tries (around 25/30) by S&Ping radio 2. Asia is there but I miss zones 23 and 24 but 28 is made on first call. Never worked 18/19 anywhere for the contest. I decide to take my second 90 Min nap at 02Z. I have worked everything that can hear me on 160/80/40 and figure that the bands will "re-fresh" and so can I. I am up and having a cup of coffee at 0345Z. A number of quick double mults. Constantly looking for zone 10 (never found). Moved zone 2 to 40M (gotta love that). A lot of S&Ping and back to bed at 0830Z. I heard 20M open up to EU at 06Z but they can't hear us low power ops... I notice that I am 150Qs behind last year.

Day 2 starts the same way except for some reason, 20 and 15 seem exceptionally more crowded. It gets really hard to find a spot to CQ and get a rate going. I find myself going back and forth between 15 and 20, not because of propagation but because I can find a good hole and get any rate going. This gets very frustrating. The constant attempts to find a run freq and hold it start really dropping the rate. I decide that I have enough "need to works" on 20M that I would be better off S&Ping 20M for an hour and restart. Very frustrating to be just S&Ping at 14Z or 15Z in a contest from W1..... But that does pick up the rate and provide quite a few mults. It seemed like the rest of the contest went that way until EU closed down on 15M and then on 20M. I was able to hold a 20M run frequency for a couple hours to build up the Qs there. At 20Z, I notice that I am off by almost 350Qs vs. last year. As frustrating as this is, I am down a little more than that on 10M alone vs. last year, which means the rest of the bands are pretty much a push.

At the end of the contest is almost as strategically interesting as the beginning. Need mults for sure, but will any "call in?". There are big pile-ups on the "new meat". Some I can break, some I can't. If the station is less than S8 with a huge pile-up forget it. Check later. I do have success into Asia/Pacific at the end. Work VK and KH6 for double mults on 15 at 22Z and worked the elusive zone 24 at 23Z first call (isn't that always the way it is...) as well as KH6 on 20M which had been surprisingly difficult the night before. Ended the contest S&Ping 20M and was too tired to remember to CQ 80M at the end (which was my plan).

How do you know how you did at the end of a contest? Its not like a road race where you see people who have already finished and more coming in after you. Well, for one I knew how I faired vs. last years score (down 1 Million points). I also knew I beat the 1997 and 1998 LP scores of low sunspots. I went on 3830 (3820 for this one due QRM) to hear the K3LR/KC1XX/W3LPL scores. It confirms that scores are down 30 - 40% vs. last year. So, as I go to sleep, after 43.5 hours of operating time, I know I did "decently" vs. conditions but no idea as to anyone beating me. I remember feeling that if anyone was able to convert the 10M 350 - 500 Qs of last year into 150 - 250Qs more on 15M or 20M, they will win. I certainly didn't.

What's your plan for CW??

Ed N1UR

## "Stack Matcher" or "4-SQUARE Controller"

#### **Build Your Own and Save A Bundle!**

Dave Jordan, K1NQ has put together a Stack Match and 4-Square Controller packages based on ARRL Antenna Book Designs. Estimated total cost for either the Stack Match (2 or 3 Antenna Stacks) or the 4-Square Controller is \$50.

**Stack PCB** \$20 - PCB Only + \$2 shipping

**4SQ PCB** \$20 - PCB only \$20 - \$25 each + \$2 shipping. Cost based on total qty ordered.

Email Dave Jordan jordand@tycoelectronics.com before December 16.

### A SIMPLE APPROACH to SO2R

Jack Schuster, W1WEF

It's not that I never tried it before. I've spent hours cutting half an inch at a time off good quality coax making stubs with deep nulls. I once bought a five band Dunestar bandpass filter. I had two FT 1000D's sitting side by side for a few years. In 1997 I actually had a SO2R setup that gave me a handful of extra Q's on the second radio, and I had my best CW SS score ever.

Despite my efforts, I never licked the QRM between radios well enough to feel comfortable using it. The continual CW buzz saw in the second radio was more an irritant than an advantage. I concluded it was impossible to do SO2R with TH6's stacked on one tower. Sweepstakes was always the one contest where I would try to make it work because of that slow boring Sunday.

SSCW 05 was going to be different. I had a new idea! I started thinking about my plan in May. After visiting W4/G4BUE in Florida in January last winter while driving through his town in the RV, I decided I should have an antenna like the one he used for his second radio. No matter what I wanted it for, it was such a nicely built antenna at such a reasonable price, I had to have one. I bought and used the Hustler 6BTV at my summer house, with the idea that I could easily take it down and bring it on next winter's RV trip. What I would also do is put it up for a second radio in SS.

By using a separate multiband antenna I wouldn't have to do ANY antenna switching on the second radio. I would locate it as far away as I could from my other antennas, to minimize QRM between radios. Being vertically polarized would help in minimizing interference with the first radio on horizontally polarized antennas.

Although I am fortunate to have a lot that allowed me to locate the vertical over 300 ft away from my single tower, I didn't have as much coax left on the spool as I thought, so it wound up only 100 ft away from the tower. Being only 32 ft high, it was still a good distance from the lowest TH6 at 58 ft. I put down only two ground radials per band, as I had this summer. Since I figured I'd only be using the second radio when the rate really slowed, as on Sunday, I figured I didn't need 1500W and set up a little FL-2100B amplifier to run at 500W.

Time to check QRM between the 1000D and the 930S. First I ran 1500W on the main radio, and tuned all the bands with the 930S. Unless I was close to the first harmonic, it was amazingly quiet. I tried all band combinations and it was the quietest setup I ever had. I next did the same thing with the 930S and amp, and it too was excellent! The only time I had severe QRM was if I ran 1500W on the main radio to my 4 squares on 80. With the vertical polarization, and two verticals being closer to the Hustler than the tower, it was undoable. However, using my dipole on 80 it was quiet, and I could live with the dipole. My hunch that a vertical on one radio and horizontal antennas on the other, with NO STUBS or FILTERS was right. This was going to play!

I spent the next day building a switch box that let me listen to the left radio (1000D) in my left ear, the 930S in my right ear, or either radio in both ears. A toggle switch selected which radio was keyed. Checking it all out it was simple enough to use and I was ready to roll...or so I thought

I started SS on 20, figuring I could CQ there for at least a few hours at a pretty good rate. It didn't happen. Where was everybody? After a few Q's I decided to scan the bands from the bottom up, working everyone I heard, knowing there were no dupes to worry about in these first few hours. The rate picked up, but nowhere near what I had hoped for, looking at Randy's rate sheet from last year.

After a couple hours, I decided it was slow enough to use the second radio, much earlier than I thought I would. I found big signals easily on the 930S, and had no trouble working them with 500 W. Go back to the main radio, work some there, and find another on the 930. This might be fun!

Then I realized a mistake I made, a big mistake. What a dummy! I was so used to operating one radio with computer control and automatic frequency logging, I had forgotten to change bands in the logging program for the 930. I thought I remembered who I worked on the second radio, and edited the contacts, but I found I would keep forgetting, or worse yet, I changed the band for the second radio, went back to the first with the second radio band still in the computer, and work a bunch of guys before realizing it! After doing this about 5 times I knew it was all over. There was no way I could figure out the correct bands, and I would be penalized severely. Five hours into Sweepstakes, very disappointed, I threw in the towel. The penalties would be so great that it wasn't worth a serious effort.

Sunday, I decided to get on and off during the day, and forget the 930. Since the log was so busted, I decided to look at packet and see what that is like since I never ever used it in a contest. I would go for a sweep, and send in a checklog. To avoid confusion, I continued to send "B" for the rest of the operating time. I never did get the Sweep, missing NL, but getting a sweep this way would have meant little to me anyway.

What did I learn? I learned that I can set up two radios with almost no interference between them, with no filters or stubs. I also learned that there's no way I'll ever do it again without computer control that will select the radio from the keyboard and log the right frequency!

### **PROFILES - W1RZF**

Jerry Woodworth N1DD

At the October meeting, Art, W1RZF, gave an update on the First Call Area QSL Bureau and presented awards to the volunteers. Although the QSL Bureau is used by many of us, few of us are familiar with the process. This issue we will tour the bureau and profile Art Holmes, W1RZF, who is the manager.

Art became the Manager and Treasurer about two and a half years ago. During that time, he has made a number of organization and workflow changes and added volunteers to reduce the time commitment of any one individual and improve service to the users. In his additional role of Treasurer, he receives all funds from users via check or Paypal and disburses funds to the sorters for mailing cards.

QSL cards for the in-coming bureau arrive at the post office box in Milford, MA, and go to Martin Bayes, AA1ON, assistant manager for pre-sorting. AA1ON packages the cards into 20 pound boxes and sends the boxes to 20 individuals or clubs who sort the cards by the first letter of the suffix. The first sorters then send the cards to Darrel Daley, K1KU, assistant manager for final sorting.

K1KU collects the pre-sorted cards and sends the cards to the 22 final sorters. The final sort is by call sign. At this time, Art sends the previously collected user funds to the final sorters, who credit the account of each user. The cards are then packaged and mailed to the users. The whole cycle is repeated four times a year. Although records of total cards processed are not kept, Art estimates the number to be at least 225,000.

Art developed specifications for new accounting and record keeping software, and Dave Robbins, K1TTT, volunteered to write the program. The new system went into operation this past September, after a year's work by Art, Dave, several testers, and Eric Williams, KV1J, who wrote the documentation. The program integrates addresses and email addresses from CD's furnished by QRZ.com, which goes a long way to fix the largest problem at the bureau—out of date addresses. Email can be sent to users, for example, with low funds. Additionally, the new system updates user fund accounts and keeps records, all of which were previously manual exercises.

While Art has been the central figure in these changes, he is quick to share the credit with "The great crew of people at the bureau. All are volunteers, some as long as 18 years, and some were recruited this year."

Originally from Wayland, MA, Art's first call sign was WN1ZLY in 1953. After college, he moved to upstate New York and held WA2TIF. Art returned to Massachusetts in 1987 and received an Extra Class license in the late 80's. After the FCC rule changes in 1996, Art received W1RZF, which was his late father's call sign.

Art started contesting casually in the 1960's. Today, his favorite contests, which are serious efforts, are the Big 4 DX contests and VHF contests. Art has operated HF contests from several multi/multis, most recently at K1TTT. W1RZF was the winner of the Western Massachusetts section in several ARRL VHF contests. Another principal interest is VHF DXing.

An Icom 756 PRO II is used on HF and six with a kilowatt amp on HF. A Yaseu FT 736R covers 144, 222, and 432. Art has a kilowatt on 144 and is presently home brewing a kilowatt for 222. The HF tower is 60 feet high and sports a 3-element quad. The VHF tower is also 60 feet high and has 5 elements on 50, 36 elements on 144, 20 elements on 222, and 25 elements on 432. Dipoles for the lower bands are strung between the two towers. The towers are located on a North-South ridge with a downhill slope toward Europe. Art analyzed his location with HFTA and concluded that 60 feet high towers do the job toward Europe.

Art spent several years serving YCCC without any official title. He managed the awards program and worked to get operators on the air for the DX competitions. Art enjoys the camaraderie and competitive environment of YCCC as well as the wealth of knowledge in the club.

Art graduated with a BS in Electrical Engineering from Northeastern. His career was in electrical engineering and engineering management at IBM and DataGeneral. He was a pioneer is the development of microcomputer chips. Art retired in 1991.

He may be retired from work, but Art keeps a busy schedule. He is the Town Moderator in Mendon, MA and previously served as a Selectman and member of the Finance Committee. (For those YCCCers who do not live in Massachusetts, these titles are offices in town government and are usually volunteer.) Art is also very active in his Church.

Art and his wife, Kay, who have three grown children, live on four acres, unusual because it is an in-town location. Another hobby is gardening. He grows an extensive array of flowers at the front of his property. According to Art, "People comment on the beautiful flowers and not the towers".

## Regular Meeting October 8, 2005 - Marlborough, MA

The October meeting to kick off the 2005-2006 contest season convened at the Holiday Inn, Marlborough, MA. President Mark Pride, K1RX, called the meeting to order at 1:08pm. The first order of business was the introduction of new member candidate Chuck Newman, KA1CQR, from Norwich, CT, who was voted in as the newest member of YCCC. Mark then announced a "warmup" exercise, an in-person "sprint" in which attendees introduced themselves verbally to another attendee with callsign, name and QTH, copied the exchange, and then physically QSY'd by at least one meter for another eyeball QSO. All agreed the verbal sprint was a fun way to meet all the other meeting attendees. The hotel did not appear to mind the few minutes of QRM from the meeting room.

Mark began the business portion of the meeting with a simple message, intended to set the tone for the annual YCCC challenge to FRC for Unlimited Contest Club supremacy in CQWW and ARRL DX: "Kick Butt!"

George, W1EBI, presented the secretary's report. As of October 1, the active membership, inclusive of members with dues paid up to March 31, 2006, or not more than one year in arrears totaled 358. George again reminded members to advise him of any change in callsign, license class, QTH or email address. The report was accepted.

Ed, K1EP, gave the treasurer's report, which was accepted as published in the October issue of Scuttlebutt.

YCCC has earmarked funds for scholarships and for donations to organizations that promote amateur radio. In the latter category, the club has chosen the first grade class at Winn Brook School in Belmont, MA, which has set up an HF station with the help of several club members to aid in teaching Morse code, wireless communication technology and other facets of our hobby to a bunch of eager youngsters under the guidance of teacher and YCCC member Donna LaRoche, KB1LWY. A check for \$1,000 will be presented to Donna to help further her work with the "Hamsters" at Winn Brook School.

VP Brian, N1IK, outlined the new club awards program to be implemented this year to provide tangible recognition to club members for their operating as well as non-operating contributions. Certificates will be awarded for notable performance by YCCC members in more than a dozen major contests in CW, Phone and RTTY modes. Winners will be determined by published contest results. Brian said that YCCC "Most Valuable Player" and some ad hoc awards would also be presented. Award presentations for the 2005-2006 contest season are to be presented at a club awards banquet in October 2006. The presentation generated some lively discussion and comments regarding the eligible contests and modes, as well as some other suggested categories such as "Rookie of the Year", "Most Improved" and a "Young Contester Award".

Art, W1RZF, W1 QSL Bureau Manager, described a new Windows-based program being employed by the bureau to facilitate sorting and distribution as well as to maintain a funds tracking database. The program was developed by Dave, K1TTT. Art presented recognition plaques for service to the bureau by Lisa, K1UQT, Mike, W7OT, Eric, KV1J, and Don, W9WW (ex-KA1T). Special recognition was given to Bert, W1ZS, Art's predecessor and former manager of the W1 QSL Bureau.

Mark asked for volunteers to assist Steve, N1SR, in editing and publishing *Scuttlebutt* to give the club newsletter more content and a snazzier appearance. His request was illustrated with a reference to the latest issue of the FRC newsletter, which called on Frankfordians to "beat YCCC". Mark's response: Get motivated! Set goals! Stay in the chair!

Attendees were introduced to still another new member candidate, Lee Hill, WB1ADR, of Hollis, NH. Lee and his 90-foot tower with a TH7 and a 40-2CD were summarily voted in by acclamation in the time-honored YCCC tradition.

Mark, on behalf of Dave, K1NQ, asked for a volunteer to take over the task of ordering YCCC QSL cards from the new supplier, LZ1JZ. He also indicated that YCCC is looking for current members with a past affiliation with a college radio club to reach out to that community in search of potential new members and operators at multis.

Several YCCCers planned to operate the upcoming major contests from DX locations. Joe, K1JB, announced that he and Mike, K1EU, would again be a GD6IA for CQWW Phone. Paul, K1XM, will be VP9I for both modes of CQWW. Bill, NE1B, will be at C6ANM for CQ 160m and ARRL DX Phone.

After a break, Mark introduced Doug, K1DG, and Randy, K5ZD, who presented their "Extreme Makeover—YCCC Edition". These two world-class contesters analyzed the station operating setups and 2004 contest logs from several member-volunteers, and suggested areas for improvement in human factors and equipment layout as well as operating strategy in the hopes that the examples might inspire others to improve their own station configurations and contesting techniques. Thanks to NA2NA, N1UR, W1LLU and K0TV for submitting to having their stations and logs pulled through a keyhole by Doug and Randy. It made for an outstanding two-hour tour of numerous ways to improve the contest results of small, medium and large stations.

The meeting was officially adjourned at 4:25pm.

Respectfully submitted, George Harlem, W1EBI Secretary

#### 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 3<sup>1</sup>/<sub>2</sub>" 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

**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 <u>http://www.yccc.org/members/yccc\_qsl.htm</u>. 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 John Crovelli, W2GD	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	Туре	Place
December 4 <sup>th</sup>	General	Vernon, CT
February 4 <sup>th</sup>	General	Vernon, CT
April 8 <sup>th</sup>	General	

Ship's Log	December 2005	Issue 181
Captain's Cabin	Mark Pride - K1RX	1
Treasurer's Report	Ed Parish - K1EP	2
Flotsam & Jetsam	Jack Schuster – W1WEF	3
2-Ele 40M Wire Beam	Michael Loukides - W1JQ	4,5
CQWW SSB LP Notebook	Ed Sawyer - N1UR	6,7
Stack Match or 4-Square Controller PCBs		7
Simple Aproach to SO2R	Jack Schuster – W1WEF	8
Profile-W1RZF	Jerry Woodworth - N1DD	9
Oct 8th Meeting Minutes	George Harlem - W1EBI	10

# Next General Meeting of the Yankee Clipper Contest Club Sunday, December 4<sup>th</sup> – 1:00PM - 5:00PM Quality Inn, Vernon, CT Guyed Tower Analysis - John Corini - KE1IH

The YCCC Scuttlebutt 177 Upper North Row Sterling, MA 01564

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