



Publication of the
Northern California
Contest Club



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NCCC Net
Thursday 8 PM
3830+/-

Our Next Meeting

ARRL Publications
Dean, N6BV

Date: Monday, 9 January 2006

Time: 6:00pm schmooze, 6:30pm dinner, 7:00pm program

Location: Holder's Country Inn, 998 S. De Anza Blvd., San Jose CA 95129 This is just south-east of the intersection of Highways 280 and 85 in Cupertino. There is a large back room for our meeting.

Dinner (choose one of): FISH: Grilled Salmon; CHICKEN: Chicken Cordon Bleu; BEEF: Tri-tips and noodles; SALAD: Southwest Chicken Salad

All dinners include salad, vegetable, soft drink and dessert! \$22 per person (incl. tax and tip). Please RSVP your meal selection in advance to [W0YK](mailto:w0yk) by Thursday, 5 January who will be collecting \$22 by PayPal, or at the door for those having dinner.

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Mike's Mic

Mike Heideman, N7MH

Congratulations to all of you Kbers who helped us to what appears to be a "three"-peat in the SS Unlimited club competition.

The key to this effort was getting those operating chairs filled. Planning, recruiting, encouraging, elmering, operating, hosting guest operators, nagging, cheering – all these and more helped us achieve this goal. Thanks to everyone who participated in some way in this fine effort.

The New Year is upon us and I'd like to challenge everyone in the club to try something new in contesting in 2006.

As I look back on the past few years I recognize that I have added something to my contesting resume and repertoire nearly every year. This year marks the first time I've gone to an exotic location for a contest, ending up at P40L for CQWW CW.

That was an amazing experience and I look forward to similar adventures in the future. 2004 marked my first serious participation in RTTY contesting. 2003 was the first year that I participated in a contest exclusively on 160 meters. 2002 was the year of SO2R. The years before that are a bit of a jumble for me but I'm sure I did at least one new thing in contesting every year.

So challenge yourself! Do something that you've never done before, whether it's

trying out QRP (just not in SS!), a VHF contest, EME, single-band effort, a multi-op, guest-operating, hosting a QSO parties, the NCCC Sprints, an NCJ Sprint,...

Happy holidays to all and let's all help make 2006 a great year for contesting.

VP/CC

Kurt Andress, K7NV

Congratulations and MANY THANKS to everyone that got on the air for the Sweepstakes weekends and then got those logs sent in on time! The turnout was greater than I expected and may have captured another "Gavel". It was fun hearing lots of KB'ers on the contests.

Congratulations to N6BV and N7MH for the top combined scores for the Club. KB!

I think we will end up with somewhere near 17 Meg points. We'll just have to wait and see how it comes out.....

Some of you are probably breathing a sigh of relief now that I won't be pestering you for a little while!

Our next organized efforts for the Club will be the NAQP contests in January. NAQP CW is Jan 14-15, and the SSB contest is Jan 21-22. You will be hearing from our team organizers about these where we will again be organizing teams. These are really fun contests using low power and there is usually good activity. And, they are not that long.

In February, we will be Sprinting again, and the NAQP RTTY contest is the last weekend.

Don't forget, we will still be having practice contests every Thursday night before the NCCC net! N6RO will continue to announce them each week on the NCCC and CQ-Contest reflectors.

Merry Christmas and Happy Holidays to everyone!

SS Preparation – Part II

Ed Muns, W0YK

Preparing for SS Phone

The priorities are finally getting the 80 dipole fixed, the 15-meter Yagi constructed and installed and solving whatever the Packet problem was. While talking to N6BT one day about the NCCC holiday dinner, I mentioned my woes over the 80 dipole. Tom suggested immediately that I probably had the gap in the PVC element insulator on one or both element halves oriented so that there was an easy RF short to ground.

I know better than that, and didn't think that was the problem, but nonetheless scrambled up the tower once again after we hung up to check things out. Dang if he wasn't spot on! One of the PVC insulators had its gap right on the boom-mast plate and there was clear evidence of RF arcing underneath the element. In fact, a 1/2" chunk of the PVC had been vaporized away. I quickly loosened the U-bolt, rotated the PVC back to where it is supposed to be, climbed down and joyously discovered the antenna can take full power again.

Fixing Packet

Packet was a similarly easy fix, but it took a lot of troubleshooting to discover a most unlikely cause. For some reason, my Packet setup operated as though a continuous and rapid stream of CR/LF's were being sent to the node from my TNC emulator. The N7TR node got so annoyed with this behavior that my call sign was blacklisted by the node software, prohibiting me from signing in! K1TTT suggested a number of things, most of which didn't change anything until I tried changing one parameter in the WinTelnetX configuration. However, that "fix" didn't make sense to either one of us and David wrote a little

applet for me to run on my setup and login to his PacketCluster node.

That didn't give us anymore insight. Meanwhile, I downloaded the VE7CC user software and bought the DX Telnet software that folks like K6GT use, all as a back-up so I could get Packet re-integrated with TR-Log. Finally, I researched node URLs in the Western US and programmed a dozen of them into my software so I have alternatives during SS Phone.

However, I was still curious and disturbed that we really didn't understand what was going on with the WinTelnetX setup and I worried that this might be an indicator of some problem that I should know about. So, I started substituting different computers and cables in for both the TR-Log computer and WinTelnetX computers. With a new computer replacing the WinTelnetX computer, the system started working like it should. I can find nothing wrong with the original computer, so still really don't know what the problem was/is.

Turning the spotlight on antennas, again

Now, it was on to the fun part of building up the 15-meter 5-element Yagi. The 5-element 10 was almost together already, in the after math of a 10-meter antenna binge about a decade ago. But, I wasn't too worried about whether I got it up or not. 80 and 15 were the additional bands I wanted in place for SS Phone compared to SS CW.

With 80 now working, the focus was on the 15-meter Yagi which went together and installed on the tower in straightforward fashion. I had to remove the remaining C3HH to do so, but now I had a reasonable complement of SS antennas for Phone. And there was still time left to get the 10-meter Yagi built and installed plus replace all the coax jumpers on the tower with new LMR-400.

All but the 40 jumper was accomplished by Friday evening prior to Phone SS and I decided to NOT do any tower work

Saturday morning just before SS. I did go back on Monday morning after Phone SS and wrap up the finishing touches on the tower, removing the tram and pull lines, dressing cables, etc.

Phone Sweepstakes

Wow! This is the first SS in years where I actually had time to rest, eat, check the beacons for propagation and even get on the bands and warm up frequencies getting signal reports from around the country. What a great way to start the contest!

Everything seemed to check out great and although I worked east coast stations on 10 meters, I didn't have the sense that there would be much, if any, volume of stations there. The signal levels weren't that strong and the 4U1UN beacon was weak, coming in and out of reception during the morning. So, I figured I would start on 15 if it looked strong enough by 1pm local.

15 wasn't great, but it did seem good enough to start on, and so I did. Packet showed me that a number of local stations had started on 10, e.g., N6BV, K6XX and others. At 1:30pm, the 15 meter rate was decreasing, so I decided to try 10.

Well, DARN, now the 10-meter Yagi is exhibiting the same problem I had with the C3HH during CW SS! OK, scratch 10 ... it probably isn't a huge loss anyway. But I lost 5 minutes messing with it. Back to 15 for a while then on to 20, but all the while the back of my mind was stewing over the 10 meter problem.

I figured that it must be a switching problem, i.e., the SixPak, because everything else had been replaced. Then it occurred to me that maybe the 12VDC supplying the SixPak relay power was low. I reached over to the variable supply, cranked up the voltage from 13 to 13.5 and VOILA! ... 10 meters is working. Further thought on the subject reminded me that I also had inserted a diode in series with the 10-15-20 meter relay lines in order to create

an 'OR' function to drive the C3HH's from the SixPak. That, of course, adds a 0.7V drop in addition to whatever the wire loss is. Mental note ... remove those diodes first thing Monday!

In perspective

Overall Phone SS was another disappointing SS experience for me. I felt strong on transmit but was really struggling with some of the A and Q power stations, unable to complete many exchanges through the QRM.

I always felt uneasy about my run frequencies and worried how much I was being covered with adjacent QRM. The result of all this was that I had a slower start than my plan called for and then fell farther and farther off that plan as the hours went on.

When I took a break at half past midnight I was only a few QSOs ahead of where I had been during CW SS at the same time! That was a bad omen. I tried 'RO's suggestion of getting up at 3-4am local and working the East Coast sunrise and that didn't seem to produce more rate than Saturday midnight or Sunday 6am. I felt the extra two hours of sleep would have served me better. But, I'm glad I tried it to see what it was like. Sunday was more of the same, sluggish rates, far below my plan and I continued to fall further and further behind.

Post-SS critique had N6BV suggesting that much of my struggle may have been a result of a slightly tempered confidence. He, too, had many stations he had to send away because he couldn't copy. He, too, had to fight to find and hold good run frequencies. Perhaps I just wasn't aggressive enough ... and I certainly know that Phone is not my favorite mode. But, this is now the fourth year of underachievement on Phone SS for me, after routinely doing 1600-1800 QSOs in Phone SS from this QTH in earlier years. Well, something to work on for next year. At least I made my NCCC SS pledge for the combined CW and Phone weekends. The

most important goal was met—contributing to the NCCC gavel quest.

Ambidextrous CW Capability

By Kurt Address, K7NV

One of the things that came out of our Contesting Clinic at N6RO's last July was some curiosity and interest in my ability to send CW with both hands. I thought some comments on this subject might be interesting/encouraging for some of you.

I am naturally "right-handed". I realized that I needed to learn how to send CW with my left hand sometime around 1985 because this would allow me to operate a bit more efficiently while writing with my right hand in the paper log. I can't write with my left hand.

I thought this would be a terribly difficult thing to learn how to do, but I was a reasonably young budding contester, and really wanted to become better at it. And, I didn't know I couldn't learn how to do it.

Training the left side of my system (the brain & fingers part) to operate a cw key turned out not to be nearly as difficult as I had expected.

The most important thing to do is to make the left hand key a "mirror image" of the right hand one. What this means is that if your natural hand key gets pushed one way (like left for dashes, and right for dots), then you set up the other key exactly opposite (right for dashes & left for dots).

The human brain deals with kind of symmetry much more easily. It only took me two weeks to get to feel like I could actually send cw in a contest with my left hand. I practiced for one hour every night for those two weeks, and just couldn't wait for the next contest to get to try it out under fire.

When the next contest came, it was not nirvana, I stumbled and fumbled for a while until I realized that I really had to just quit thinking so hard about it, and just do it. When I let myself go a little bit, and quit over thinking the whole thing, it just started rolling out amazingly easy. It took me several contests to gain the confidence needed to just "let'er rip" with the left hand. Then it was really cool and totally fun. I'm sure it was much more efficient than going from key-to-log-to-key while dropping or trying to hold the pencil (my current key grip is a result of learning how not to drop the pencil).....ad nauseum, while the other hand sat there doing nothing wondering what was happening.

With the introduction of computer logging, the need to "write with the right hand and send with the left" went away. It took a while for me to figure out this new way of contesting. It seemed that I no longer really needed to be able to send cw with my left hand, but it was still pretty cool and fun and I didn't want to lose it.

After I moved to NV and got some kind of station to try to learn how to contest again, I finally figured it out. As a SO2R CW operator there are two radios plus a keyboard & a key one needs to master. Being one handed on the key requires that side to do more work than the other, which creates an imbalance in human system operating it. Balanced operation is more natural, easier and more efficient.

The way I have my station set up, R1 is on my left, R2 is on my right, keyboard and monitor in the center. This means that my left hand needs to do whatever is needed to run the R1 station, and the right hand needs to run the R2 station.

That logically results in the realization that whichever hand is not being required to run its station needs to be able to do the other things required at any given time. So, if my natural hand (the right) is on the right rig or an antenna switch, or cup of coffee, or sandwich, or whatever.....the left hand can

just jump in there and take care of business, instead of aborting everything my right hand was doing to get to that key or keyboard, and then trying to remember "what was it I was wanting my right hand to do before I had to panic and make it go take care of the emergency to get that Q in the log".

I've found that this old capability to send cw with the left hand has greatly reduced my fatigue during contests, and probably makes me just a little bit more efficient overall in getting the most I can out of my two rigs and keyboard. My hands just sit there next to their own respective rigs and keys and do whatever the main computer (between my ears) tells them to do. Lots of small movements, few big ones. Plus it is still fun.

I find that as I get older maintaining my left handed sending ability improves my right handed ability. Don't know why, but I feel more balanced with it all. Maybe this is that right vs left side of the brain thing, I may have one side fetched up with something that is going on, and it's nice to have the other one step in and help out a bit. I still screw up a lot sending cw, I get a lot of dust and dirt in my key contacts here, even during a contest, so if one key goes spastic, there's always the other one that might still be ok to go to until I can stop and clean the contacts.

I run TR log always here at my own station and I have both keys Y'd into the computer to run the TR keyer. But, Dean, N6BV, posed a very interesting scenario, when he took a guess at what I was doing at the clinic, that could be pretty interesting to explore. Have each key only connected to its own rig. That will take a lot more brain power to sort out, as it would allow one to transmit simultaneously on both rigs (which TR will not allow), but would make managing SO2R a little more natural from the keys, instead of the keyboard. An example would be sending a guy, responding late to a cq, a quick "AS" on that rig while copying an exchange on the other rig that you called S&P, instead of trying to

get the computer to change rigs to do it. I always get screwed up trying to do that thru the computer.

Having the keys dedicated to each rig would make this a snap, but then I'd have to worry about making sure the sandwich is in the hand that won't be needed to make a Q!

See, there is still much more to learn about this stuff!

I would encourage anyone wanting to try to learn how send with the other hand to just boldly go give it a try and give it some time. It's pretty cool!

ARRL 10-Meter Contest

Ed Muns, W0YK

The ARRL 10-Meter Contest is one of my favorites. There is usually lots of action, more than I can fully capture, and a full-out effort can still get some good shut-eye at the normal times we all sleep! Mixed mode offers the potential of switching modes if one mode dries up, as well as making the weekend more interesting than a single mode. Competitive antennas are relatively easier to install.

This year I was able to carve out the 10-Meter contest weekend in my schedule and decided to give it a whirl. During the week leading up to the contest, there was a lot of chatter on the NCCC and CQ-Contest reflectors about what propagation we might expect. For the most part, some respected contesters were actually pretty optimistic. Still I had low expectations for this part of the cycle. I was reminded of the importance of crooked-path QSOs, particularly to the south. I currently have a single 10-meter Yagi fixed at 70 degrees, but that doesn't stop me from jumping in and having fun anyway. However, around noon on Thursday prior to the contest, it occurred to me that I could at least throw up a dipole facing south east to help with trans-equatorial QSOs and possible crooked-path

contacts ... as well as any propagation to the north west (dare we hope for a JA or two?).

As I got into the details of how to readily install a 10-meter dipole, I decided to take an element from one of the several 8-element 10-meter DX-Engineering Yagis I've had for 15 years (unassembled!). Well, then, its not much more effort to use a 12' section of one of their booms and mount, say, three elements. As usual my mini-project escalated and by noon Friday, I had a newly designed (thanks to YO) 3-element Yagi mounted at 32' just 9' below my 5-element 10-meter Yagi. (I didn't even fire up YS for mechanical design because the parts I was using were extra-heavy duty and I positioned the middle (driven) element next to the mast-boom plate, so it was balanced "enough" weight-wise.) I aimed it at 140 degrees and hoped the two antennas would have minimal interference. I had an unused StackMatch on the tower from some prior installation and used it to connect the two 10-meter Yagis into the SixPak. Happily, the VSWR curve matched the YO model perfectly and the 5-element curve was unaffected.

My antenna strategy was to split power between the two antennas unless it was clear that I needed a bit more in one direction or the other. 95% of the time, I was on both antennas, switching in one or the other when needed to handle a weaker station or decrease QRM from the unwanted direction. The 3-element Yagi worked great as is often the case on 10 meters. I optimized its design for VSWR because I wanted a lower F/R and gain in order to have some use of the rear direction for the US/Canada Northwest and Asia.

The rear of the 5-element would have to suffice for VK/ZL and the South Pacific, which it did just fine. After the contest, I studied the packet spots and saw one from ZL6QH who posted that W0YK was the last NA station heard one night after the band closed down to the US. (Another ZL6QH post lamented "W0YK just pinched my

QRG!” so I guess the back of a Yagi isn’t always ideal.) While one “feels” weak and vulnerable working off the back of Yagis, the reality is that on 10 meters its not all that bad most of the time. So, the result was that my little two-Yagi array was sort of an omni-directional antenna where I seldom had to think about orientation or rotating. One less distraction during the contest!

Since my contesting bias is strongly toward CW, my strategy in the 10-Meter Contest and CQP is to focus on CW and only go to phone when I think it will help my score more than staying on CW. The 2x points value for CW QSOs in the 10-Meter contest provides even more incentive to stay on CW. It is seldom that I can run on phone at 2x my CW run rate given identical conditions. So, the only reason to move to phone in the 10-meter contest is to grab some easy mults or if I happen to run dry of stations to work on CW while the band is still open. The latter never happened, mostly because the openings were too short to work everybody out. Coveting the phone mults was a tougher mind game for me. Tuning with the second VFO in the phone band while running CW could find some needed mults. Taking a quick, focused S&P scan through the phone sub-band with one rig would also be productive for mults. And, finally, a short CQ session on phone would capture a lot of mults as well. The trick was just how much of this should be done at the expense of forgoing the 4-pointers on CW.

Mult chasing is a trap that I can only avoid by calmly doing some quick math while running stations. For example, mid-day Saturday I had 2200 points in the log and 100 mults. So, how much time can I really afford to spend chasing mults, i.e., slowing my run down to look for them and interleave working them with my run QSOs ... or even worse, leaving my run to focus on mults? Well, using my current numbers, an additional mult was equivalent to 22 points (2200/100). That’s 11 phone QSOs and 5.5 CW QSOs. Hmmm ... I was running CW at

600-750 points/hour at the time, or 22 points every 2 minutes, or less. Gosh, I couldn’t justify messing with mults! Of course, the rate drops off as the opening closes, but then so does the opportunity to find new mults.

Incidentally, for mixed mode contests, I prefer to set my logging software rate meter to points/hour rather than QSOs/hour. That helps me keep the proper perspective on what mode I should be on. Several years ago when I was using CQPWin, I convinced Andy, AE6Y, to add points/hour to the rate meter and I think he now concurs that this is a useful tool in mixed mode contests. This is more true for CQP than the 10-Meter Contest. As I noted earlier in this contest, I find it pretty hard to even meet my CW point rate on phone, much less exceed it. But in CQP the ratio is only 1.5:1 (3 points for a CW QSO and 2 for phone), so this makes the point rate between the two modes much more equalized, at least for me. Therefore, I need to more carefully monitor my points rate and alternate between modes accordingly.

I was chatting with Al, K6RIM, just prior to the gun of the 10-Meter Contest and he noted that the good news that weekend would likely be that (1) finding a run frequency would be easy, and (2) scanning the band in S&P mode wouldn’t take a lot of time! This was true most of the weekend except for the very few hours when we had nice openings to most of US/Canada. In the higher portions of the solar cycle, these openings are longer and even more pronounced than this year. At those times, a full megahertz of 10 meters is packed with signals and there is no way to work them all. Meanwhile, it was fun this year working 1200 stations across the weekend, during mostly daylight hours, and getting some good sleep at night.

Happy New Year!

--CL--

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