



Publication of the
Northern California
Contest Club



July
2008
Issue 434

NCCC Net
Thursday 8 PM
3610+/-

Our Next Meeting

- Field Day Stories
- IARU Contest Feedback
- Membership Survey Update
- "Computer-to- Radio Interfacing", Jim, K9YC

Tied House
RSVP: (k6eu@arrl.net)

Date: Monday, 14 July 2008
Time: 6:00pm schmooze, 7:00 pm dinner, 8:00pm program
Location: Tied House, 954 Villa Street, Mountain View, CA 94041 (650) 965-2739

NCCC Officers

President: [John Miller, K6MM](#)
Vice-President and Contest Chairman: [Jim Brown K9YC](#)
Secretary/Treasurer: [Tom Carney, K6EU](#)

Directors

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Director: [Tom Taormina, K5RC](#)
Director: [Dean Wood, N6DE](#)
Director: [Tom Berson, ND2T](#)
Honorary Director: Rusty Epps, W6OAT

Webmaster: Ed Muns, W0YK w0yk@msn.com
JUG Editor: Rob Brownstein, k6rb@baymoon.com

Zero Beat

By John Miller, K6MM

Once again about 60 Kbers attended the June meeting in Milpitas. We had a full agenda for the evening, including a Budget Presentation, an informative panel discussion on "Contesting And Your Health", and preliminary results of the recent online Membership Survey.

Meeting Highlights:

- The 2008-2009 Budget presented by Tom, K6EU, was approved (see "Budget")
- A total of 101 Kbers have responded to the 2008 Membership Survey. As a result of your input, we now know (1) What you need in the way of help and (2) Who has volunteered to provide help. The next step is to set up teams to make it happen, and Jim, K9YC, is already on the case.
- Our Contesting Health Panel, moderated by Tom, ND2T, provided excellent insight and sound advice on how to reduce contest-related stress. Panel members included Chris, K6DBG; Fred, K6DGW; George, K6GT; John, K6MM (acting for Alan, K6SRZ + Tom W2SC); Dean, N6BV; and Jack, N6EM.

Additional comments from the audience added value. The entire discussion was captured on audio tape, and after it is transcribed, will be posted on the website. For now, the slide content has been archived

on the Meetings Page under “Past Meetings”.

- Plans for the ARRL Field Day weekend were discussed, and hopefully many of you had a chance to get out of the house for a few hours of fun at one of the many FD operations around the Bay Area.
- We’ll have 2 meetings in July – our regularly scheduled meeting Monday, July 14, and a joint meeting with MLDXCC in Lodi, CA on Saturday, July 26 (see “July Meetings”)
- There are several excellent contests coming up in July – a great opportunity to check out your equipment, experiment with the digital modes, and improve your CW copying accuracy (see “Contests For July”). Go For It!!
- All PowerPoint presentations can be found in the Members section of the NCCC website.

Summary

A key goal this year is to get more folks involved in contesting by increasing operator confidence, station capability, and contest participation. The panel discussions during May and June have worked well, and the Membership Survey has given us the feedback we need to move ahead with our volunteers.

I think we’re off to a great start this summer. Stay tuned – more RF coming your way.

CU in the next contest!

73, John K6MM

VP/CC Corner

By: Jim Brown K9YC

Survey Results, Volunteer Appointments

The membership survey has been quite successful. We have 102 responses so far. Nearly half of all respondents want some kind of help from the club, and nearly half have volunteered to provide that help! At least 30 members have volunteered to help

with logging software, 27 to be contest mentors, 22 to help with interfacing rigs to computers, 21 to help with antennas, 13 to help with RTTY setups, and 8 to help with RFI/TVI. We also have volunteers to coordinate NCCC participation in our target contests.

More than a dozen members have volunteered to be our regional coordinators, linking up those wanting help or a place to operate with those offering to help and/or a place to operate. Note that some areas aren’t covered, especially those that are more distant from the Bay Area.

Our regional coordinators so far are:

Coast N of San Francisco – W6XU

w6xu@arrl.net

East Bay near the bay – N6WG

n6wg@comcast.net

East Bay to the east – N6RO

kenkeeler@jazznut.com

Fresno – K2VCO vic@rakefet.com

Los Gatos, Cupertino, Rte 17 –

NI6T gary@ni6t.com

Northern Nevada – K5RC

tom@k5rc.cc

San Francisco – N6BV

n6bv@arrl.net

Santa Cruz/Monterey – AE6RF

dkerns@cruzio.com

S Bay/San Jose – AD6E

ad6e@arrl.net

Sierras North – K6III

jerry.bliss@gmail.com

Sierras Central – ND6S Raymond

Parker nd6sarrrl@sbcglobal.net

Sierras South – WK6I

jds@twistedoak.com

Sonoma – K6SRZ

doctore@well.com

West Bay/Silicon Valley – W6OAT

w6oat@sbcglobal.net

Regional coordinators will be contacting those wanting help with their stations, with building contest skills, and with sharing stations, with members who will provide that help, that mentoring, and may be willing to host a guest operator.

If you haven't already filled out a survey form, or if you would like to update the information you've already entered, you can do so any time. Simply visit <http://tinyurl.com/5p36yw> and enter your data. If you need help with antennas, computer interfacing, RTTY, RFI/TVI, logging software, or building contest skills, this is how to get that help! Or contact your regional coordinator directly.

Contest Activity

It was great to see the activity in All Asia CW and the VHF QSO Party during June. I had to leave on a business trip to LAX, so missed the nice 6M opening on Sunday afternoon. By the time you read this, I hope that all of us are sunburned from our Field Day activity.

Upcoming Contests include:

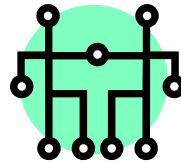
- RAC Canada Day CW/SSB (Jun 30/Jul 1),
- IARU Worldwide CW/SSB (July 12),
- NAQP RTTY (July 19),
- IOTA CW/SSB, (July 26), and
- NAQP CW (Aug 2).

All of these contests have enough participation to make them interesting, at least part time, and offer opportunities to fine tune station setups, learn new equipment and logging software, and have fun.

And don't forget the weekly NCCC Ladder and practice Sprints held every Thursday night from 7:30pm to 8 pm Pacific time, and the slow speed version from 7 pm to 7:30 pm. These are also great opportunities to build skills, especially for hitting the ground running in the first minutes of a contest, and for quick band changes. After the Sprint, check in to the NCCC net on 3610 kHz. Rules for these Sprints vary from week to week, so check the NCCC website or watch the NCCC reflector before each week's session.

<http://www.ncccsprint.com/rules.htm> has general rules, and http://www.ncccsprint.com/next_ns.htm lists rule variations for the current week.

Jim, K9YC



Welcome Aboard!

By John Miller, K6MM

Another new NCCC member, sponsored by Tom, ND2T and Kevin, K6TD, was voted in at the June meeting.

Let's all welcome WB6ZHZ, Jim Colletto, from Tiburon, CA.

July Meetings

July 14 - Next NCCC Meeting

Check the website for details of our next meeting, Monday July 14, most likely at the Tied House, Mountain View, CA. Tentative program:

1. Membership Survey Results
2. "Interfacing Your Radio" by Jim Brown, K9YC

We'll also be sharing ARRL VHF & IARU Contest stories as well as plans for Field Day June 28-29.

July 26 - Joint Meeting: NCCC + MLDXCC

We will have a joint meeting with the Mother Lode DX Contest Club at the Lodi Brewing Company in Lodi, CA on Saturday, July 26. Main topic: Presentation by Arnie, N6HC on his trip to TX5C, Clipperton Island.

Contests For July

SSB, CW, VHF, Digital, QRP. It's all there for July. For a one-page summary of all major contests throughout the year, go to the NCCC home page and click on "Major Contest Calendar" at the top of the page.

July 2008

- RAC Canada Day:0000Z-2359Z, Jul 1
- MI QRP CW Sprint:2300Z, Jul 4 to 0300Z, Jul 5
- DL-DX RTTY: 1100Z, Jul 5 to 1059Z, Jul 6
- DARC 10-Meter Digital:1100Z-1700Z, Jul 6
- FISTS Summer Sprint:0000Z-0400Z, Jul 12
- IARU HF World: 1200Z, Jul 12 to 1200Z, Jul 13
- DMC RTTY Contest: 1200Z, Jul 19 to 1200Z, Jul 20
- CQ Worldwide VHF: 1800Z, Jul 19 to 2100Z, Jul 20
- NAQP, RTTY: 1800Z, Jul 19 to 0600Z, Jul 20
- Run for the Bacon QRP: 0100Z-0300Z, Jul 21
- RSGB IOTA: 1200Z, Jul 26 to 1200Z, Jul 27

Did You Know? – 2007 Contest Results

By John Miller, K6MM

Sometimes we're so focused on the next Contest opportunity that we don't stop long enough to appreciate how we've performed as a Club during that last 12 months. Here are Summary charts for these 2007 major contests: ARRL, CQ, NAQP, and NA Sprint.

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Budget

The 2008-2009 budget, presented by Tom, K6EU, was approved at the June 9 NCCC meeting.

| Approved Budget | FY 08-09 |
|----------------------|---------------|
| Income | |
| Dues | 5,050 |
| Donations | 700 |
| Miscellaneous | 350 |
| JUG Ad | 300 |
| Total Income | 6,400 |
| Expense | |
| JUG | (1100) |
| CQP | (500) |
| Awards | (1900) |
| Promotion | (1500) |
| Miscellaneous | (1000) |
| Holiday Dinner | (750) |
| Website | (150) |
| NS Ladder | (100) |
| Total Expense | (7000) |
| Net | (600) |

| 2007 ARRL CONTESTS | 10M | 160M | DX CW | DX SSB | RTTY Roundup | SS CW | SS SSB | VHF JAN | VHF JUN |
|----------------------|-----------|-----------|-----------|-----------|--------------|------------|------------|----------|----------|
| NCCC | ?? | 6 | N/A | N/A | 2 | 1 | | 16 | 10 |
| PVRC | | 2 | | | 1 | 2 | | 5 | 1 |
| SMC | | 1 | | | | | | | |
| Total # KBers | 47 | 45 | 51 | 37 | 36 | 131 | 134 | 6 | 6 |

- ♦ ARRL RTTY Roundup: 2007 SOHP Champ = P49X (W0YK) (Set new world record)

| 2007 CQ Contests | 160 CW | 160 SSB | WPX RTTY | WPX CW | WPX SSB | WWDX CW | WWDX SSB | WWDX RTTY |
|----------------------|------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| NCCC | 34th Place | | 4th | 4th | | ?? | ?? | 2nd |
| Bavarian CC | 1st | | 1st | 1st | | | | 1st |
| PVRC | 2nd | | 2nd | 3rd | | | | 4th |
| C. C. Finland | 4th | | 3rd | 12th | | | | |
| Frankford RC | 3rd | | | 8th | | | | |
| Total # KBers | 28 | 7 | 34 | 48 | 41 | 60 | 42 | 18 |

- ♦ CQWW WPX RTTY: P49X (W0YK) = 1st and new world record
- ♦ CQWW WPX CW: P40L (W0YK, KX7M, W6LD) = 1st and HC8N (K6AW) = 2nd
- ♦ CQWW WPX SSB: 8P1A (W2SC) = 1st and P49Y (AE6Y) = 3rd WW + 1st SA. NR6O (N6RO, K9YC, N6BV, WA6O, K6AW, K6RC) = 1st in USA
- ♦ CQWW DX RTTY: NCCC = 2nd Place WW but 1st North America and HC8N (K6AW, W6OTC, W0YK) = 1st Worldwide

| NAQP 2007 | | | | | | NAQP 2008 | |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Jan CW | Jan SSB | Feb RTTY | Jul RTTY | Aug CW | Aug SSB | Jan CW | Jan SSB |
| 4th Place | 2nd Place | 2nd Place | 8th Place | 1st Place | 2nd Place | ?? | ?? |
| Team 1 | Team 1 | Team 1 | Team 1 | Team 1 | Team 1 | Team 1 | Team 1 |
| K2KW | K6MM | K6DGW | K6MM | N6RO | K5RC | AE6Y | K5RC |
| N2NL | KJ6RA | K6MM | K6RB | N6TV | N7MH | N3ZZ | K9YC |
| N6RO | N6KT | K6RB | K6TD | N7MH | W6CT | N6RO | W6NF |
| W6EU | WX5S | K6TD | ND2T | W6NL | W6NL | N6TV | WX5S |
| W0YK | | W0YK | WK6I | W7RN | WX5S | W0YK | |
| 39 others | 25 others | 26 others | 20 others | 35 others | 21 others | 44 others | 37 others |
| Total KBers | Total KBers | Total KBers | Total KBers | Total KBers | Total KBers | Total KBers | Total KBers |
| 44 | 29 | 31 | 25 | 40 | 26 | 49 | 42 |

| NA SPRINT 2007 | | | | | | NA SPRINT 2008 | |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Feb CW | Feb SSB | Mar RTTY | Sep CW | Sep SSB | Oct RTTY | Feb CW | Mar RTTY |
| 1st Place | 2nd Place | 1st Place | 2nd Place | 1st Place | 2nd Place | 2nd Place | 1st Place |
| Team 1 | Team 1 | Team 1 | Team 1 | Team 1 | Team 1 | Team 1 | Team 1 |
| AE6Y | N2NL | AE6RF | AE6Y | N6DE | K6MM | AJ6V | AE6RF |
| K6XX | N6RO | K6RB | K6RB | N6NF | K6TD | K6XX | K6MM |
| KF6T | W6NF | K6TD | K6XX | AE6Y | K6UFO | KF6T | K6RB |
| N2NL | W6NL | K6UFO | KF6T | K5RC | N6DE | N6RO | K6TD |
| N6RO | W6RK | N6CK | N6RO | K6TD | N6EE | N6TV | K6UFO |
| N6TV | | N6DE | N6TV | N6EE | WØYK | N6XI | KO6LU |
| N6XI | | W6ZZZ | N6XI | W0YK | W6SX | N7MH | NI6T |
| N7MH | | WØYK | N7MH | W6EB | WK6I | NI6T | WØYK |
| W6EU | | | W6EU | W6NL | | W6CT | W6OAT |
| W6RGG | | | W6RGG | WX5S | | W6RGG | |
| 19 others | 12 others | 6 others | 15 others | 8 others | 0 others | 16 others | 0 others |
| Total KBers | Total KBers | Total KBers | Total KBers | Total KBers | Total KBers | Total KBers | Total KBers |
| 29 | 17 | 14 | 25 | 18 | 8 | 26 | 9 |

Wire Antennas for Limited Space (Part One)

Build Your Score with a few dB Here and There Jim, K9YC

Bill, N6ZFO, has a nice piece in the Sweepstakes Handbook showing the statistical relationship between the strength of our signals and our Sweepstakes score.

His analysis shows that each 1 dB improvement is good for a 2.6% increase in our score. Making three 1 dB improvements is good for nearly 8%. Those improvements may come from a power amp, a more efficient antenna tuner, a better antenna, a better ground system, or any combination thereof.

The difference between a 1.5kW and 1 kW power amp is 1.7 dB and at least \$1.5K. Often that 1.7 dB can be obtained for a few hundred dollars and a few hours invested in the antenna system!

Many of our members have limited space for antennas, but we don't need to let that prevent us from having fun in contests. That was certainly the story of my life until I moved to the Santa Cruz Mountains two years ago.

While still in Chicago, I found some good solutions to the space problem, and, thanks to some research, two good reasons to avoid multi-band dipoles fed with twin-lead (like the G5RV and various windoms).

This series presenting various "how to" antenna ideas is intended to help us think about how we can pick up those relatively inexpensive extra dB, and have more fun.

Why not multi-band with twin-lead? There are two good reasons. First, the commonly used "window" lines may have low loss when they're dry, but N7WS showed (in ARRL Antenna Compendium #6) that losses soar (much higher than coax) when they're wet. Second, any imbalance in the antenna will cause common mode current that

couples noise from the feedline to the antenna (and transmitted RF to your shack).

The only cure is a very good common-mode choke at the feedpoint. To build a good one that will handle high power and kill the noise, it must be wound with coax, not twin-lead.

Since most contest activity occurs during our rainy season, because virtually all ham antennas are unbalanced by their surroundings, and because most of us live around lots of HF noise sources, multi-band wires fed with twin-lead look a lot better on paper than in practice.

So lets look at three much better solutions.

1) Fit more bands into the same space with a "fan" dipole. It's nothing more than two or more dipoles connected to the same feedpoint. Each behaves as a classic dipole. Feed it with coax and a good coaxial choke at the feedpoint. A 20/15/10M dipole fits into 35 ft of space.

2) Use a loaded dipole to cover 80 and 40 meters. Barry, KU3X, operating as Hypower Antenna Company, builds some very nice limited-space antennas using loading coils that act as traps on the next highest band. His 2B4080L is a great solution for 40M and 75/80M meters, and is only 90 ft long. The loading coils are self resonant on 40 with their own capacitance and are each a quarter wave from the feedpoint (33 ft). So they act as end insulators on that band. On the other side of each loading coil is another 10 ft or so of wire that combines with the loading coils to resonate on 75/80M. This was my only antenna for 160/80/40M in Chicago, and it worked very well. (More later about how I made it work on 160).

3) Build a top-loaded (Tee) vertical or inverted L for 80 and 160 meters. Antennas can be loaded with series inductance near the feedpoint or along their length, or with capacitance at their ends. The capacitive

approach is generally much more efficient (that is, more radiated power, less loss). The inverted L is one form of this antenna, the Tee is another. The vertical portion has the highest current so it does the most radiating; its radiation is at a low vertical angle, which makes this a good DX antenna.

The top section brings it to resonance (making it a better match to the transmitter) and may also contribute some high angle radiation. With a Tee vertical, radiation from the opposing halves of the top section cancel each other. This antenna needs radials (or at least some form of counterpoise) to be efficient. We'll talk more about this antenna and radials later.

Building Fan Dipoles is easy. I build wire antennas using either #10 copper (for very long antennas that must withstand considerable stress) or #12 THHN (house wire). For a fan, I use #10 for the longest element, #12 (or even #14) for the shorter ones. A center insulator should be easy, but it isn't, simply because there's more junk for sale than good stuff. The one that The Wireman sells looks to me like the best of a bad lot. The Alpha Delta might be good, but I'm concerned about how waterproof it is. For end insulators, I like the squarish PVC egg insulators or medium sized porcelain eggs.

Spacers are easy to fabricate from 1/2-inch PVC conduit (the UV-resistant type). Cut it into short pieces (about 8 inches for two-wires, about 15 inches for three). Drill 3/16-inch holes about 3/4 inch from each end, and another at the center of the 3-wire spacers, for the wires to pass through. A 20/15/10 fan needs six 3-wire spacers – a pair each side of center, a pair at the ends of the 10M elements, and a pair at the ends of the 15M elements. An 80/40 fan needs at least 12 spacers.

END PART ONE – PART TWO IN
AUGUST

