



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](mailto: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](#)  
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JUG Editor: Rob Brownstein, [k6rb@baymoon.com](mailto: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 For now, the slide content has been archived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

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### 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](mailto:w6xu@arrl.net)

East Bay near the bay – N6WG

[n6wg@comcast.net](mailto:n6wg@comcast.net)

East Bay to the east – N6RO

[kenkeeler@jazznut.com](mailto:kenkeeler@jazznut.com)

Fresno – K2VCO [vic@rakefet.com](mailto:vic@rakefet.com)

Los Gatos, Cupertino, Rte 17 –

NI6T [gary@ni6t.com](mailto:gary@ni6t.com)

Northern Nevada – K5RC

[tom@k5rc.cc](mailto:tom@k5rc.cc)

San Francisco – N6BV

[n6bv@arrl.net](mailto:n6bv@arrl.net)

Santa Cruz/Monterey – AE6RF

[dkerns@cruzio.com](mailto:dkerns@cruzio.com)

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Sierras North – K6III

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[w6oat@sbcglobal.net](mailto: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).

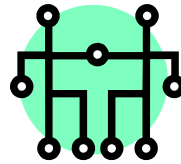
All of these contests have enough participation to make them interesting, at least part time, and offer opportunities to fine tune station setups, learn new equipment and logging software, and have fun.

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](http://www.ncccsprint.com/next_ns.htm) lists rule variations for the current week.

Jim, K9YC

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### 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.

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### 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.

(NEXT PAGE)

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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
<b>Income</b>	
Dues	5,050
Donations	700
Miscellaneous	350
JUG Ad	300
<b>Total Income</b>	<b>6,400</b>
<b>Expense</b>	
JUG	(1100)
CQP	(500)
Awards	(1900)
Promotion	(1500)
Miscellaneous	(1000)
Holiday Dinner	(750)
Website	(150)
NS Ladder	(100)
<b>Total Expense</b>	<b>(7000)</b>
<b>Net</b>	<b>(600)</b>

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							
<b>Total # KBers</b>	<b>47</b>	<b>45</b>	<b>51</b>	<b>37</b>	<b>36</b>	<b>131</b>	<b>134</b>	<b>6</b>	<b>6</b>

- ♦ 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				
<b>Total # KBers</b>	<b>28</b>	<b>7</b>	<b>34</b>	<b>48</b>	<b>41</b>	<b>60</b>	<b>42</b>	<b>18</b>

- ♦ CQWW WPX RTTY: P49X (W0YK) = 1<sup>st</sup> and new world record
- ♦ CQWW WPX CW: P40L (W0YK, KX7M, W6LD) = 1<sup>st</sup> and HC8N (K6AW) = 2<sup>nd</sup>
- ♦ CQWW WPX SSB: 8P1A (W2SC) = 1<sup>st</sup> and P49Y (AE6Y) = 3<sup>rd</sup> WW + 1<sup>st</sup> SA. NR6O (N6RO, K9YC, N6BV, WA6O, K6AW, K6RC) = 1<sup>st</sup> in USA
- ♦ CQWW DX RTTY: NCCC = 2<sup>nd</sup> Place WW but 1<sup>st</sup> North America and HC8N (K6AW, W6OTC, W0YK) = 1<sup>st</sup> 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
WØYK		WØYK	WK6I	W7RN	WX5S	WØYK	
39 others	25 others	26 others	20 others	35 others	21 others	44 others	37 others
<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>
<b>44</b>	<b>29</b>	<b>31</b>	<b>25</b>	<b>40</b>	<b>26</b>	<b>49</b>	<b>42</b>

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
<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>	<b>Total KBers</b>
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



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