

# Publication of the Northern California Contest Club

NCCC

Issue <u>530</u> July 2016



### Inside this Issue:

	- 3
Presidents Report	1
Field Day 2016	4
W6SR EME	11
Distance Based Scoring	12
Sierra Chapter BBQ	17
CW OPS	19
NAQP	21
Member Planet	23
My QSY to KH6	26
Point Generator Profile – W6SR	29
For Sale	35
Member Awards	35
Tube Of the Month	36
Contest Calendar	38
HRO	41

# **NCCC Next Meeting**



# NCCC BBQ

**Sunday September 18th** 

QTH of Ken, N6RO, Oakley

More details in the will follow in the August JUG and on the NCCC reflector.

### **President's Report**

Hello KB'ers!

Page

I writing this on the Sunday following a terrific Joint Meeting. If you missed it, we had 43 in attendance and another 5 or so watching via the WebEx session.

The meeting featured very entertaining talks by Bob, W6RGG, (CQWW in Kuwait) and Steve, W1SRD, (Chesterfield Island). Sandwiched in between the two talks was Tom, K5RC, via WebEx, talking about his great idea of a new HF contest, sponsored by NCCC, based on grid squares as a way of leveling the playing field for everyone. I'm sure we'll be hearing a lot more about this in the upcoming months.

Today was a day that reminded me why I spend so much time on the defensible space around my property, often cutting down on my contesting time in the Spring months. One of my worst nightmares is a fire at the very bottom – 1000 feet nearly straight down – of my mountain.

Well, today it happened. When I should have been writing this article, I instead spent about two hours on my deck watching the incredible work of the Cal Fire air force and ground troops. It sounded like a war zone, with three bombers, two choppers and a spotter plane. Fortunately, because Cal Fire is so good at mobilizing fast, all went well.



# **Officers:**

President W1RH **Bob Hess** w1rh@yahoo.com Vice President / Contest Chair Steve Dyer W1SRD w1srd@arrl.net Dick Wilson K6LRN treasurer.nccc@gmail.com Treasurer Secretary Ian Parker W6TCP secretary.nccc@gmail.com Past President Rick Karlquist N6RK richard@karlquist.com w6oat@sbcglobal.net Director **Rusty Epps** W60AT Director: Rich Cutler WC6H wc6h@yahoo.com Ron Castro N6IE ronc@sonic.net Director:

# Volunteers:

**New Member Mentor** Al Rendon WT6K wt6k@arrl.net Charter Member **Rusty Epps** W60AT w6oat@sbcglobal.net Joanna Dilley joanna.k6yl@gmail.com Awards Chair K6YL CQP Chair **Kevin Rowett** K6TD k6td@arrl.net **CQP** Certificates John Miller K6MM k6mm@arrl.net K6ZM QSL Manager **George Daughters** K6GT k6gt@arrl.net K6CQP,N6CQP,W6CQP QSL Mgr Ed Muns W0YK w0yk@arrl.net NCCC Email reflector Admin Phil Verinsky W6PK kb-w6tqg@verinsky.com Wehmaster John Miller k6mm@arrl.net K6MM Webinars Chris Hoffman KG60 choffma@gmail.com JUG Editor Ian Parker W6TCP w6tcpian@gmail.com jug@nccc.cc



#### NCCC Net

Thursday 8 PM Freq: 3.610 +/-

#### **NCCC**

Visit the meetings page of the NCCC website <u>here</u> for details of the next meeting

## **NCCC Membership Information**

If you wish to join NCCC, you must fill out an <u>application for membership</u>, which will be read and voted upon at the next monthly meeting. (<u>PDF application form</u>)

To join, you must reside within club territory which is defined as the maximum of:

- Northern California, anything north of the Tehachapi's up to the Oregon border, and
- A part of north-western Nevada (anything within our ARRL 175-mile radius circle centered at 10 miles North of Auburn on Highway 49).

NAQP CW and Phone are rapidly approaching. This is a Focus Contest for the Club and I'm hoping we can get our members to show up in force. The club that wins the Three Club Challenge does it by getting the most members on the air, even if it means working only 1 Q. You think 150 of us can get on the air? Most don't think so, but with over 500 members, I would sure like to see it happen.

The internal NCCC Club Competition has been off to a good start. Right now, I'm doing all of the scoring manually but, thanks to Matt, WX5S, we're beginning the process of automating the mining of scores off of 3830. I believe lan's (W6TCP) wife is also helping with the programming. Unless it's a Focus Contest, we don't care which club you give your scores to and as long as you register your points on 3830, they will be counted in the Club Competition.

I want to remind everyone that N6XI's annual Sierra Chapter BBQ will be on August 28th. If you haven't been to Rick's house, located in the high Sierra with a view to die for, you really should consider the drive and the opportunity to take advantage of Rick's and Ann's fabulous hospitality. Be sure to RSVP. The details are elsewhere in this edition of the Jug.

And, speaking of BBQ's, the second annual NCCC BBQ will be held at the QTH of Ken, N6RO, on Sunday, September 18th. If you were at last year's BBQ, this one will be very similar. Tables and chairs under the tent, good BBQ, and good friends. It's also, again, on the same weekend as the Washington State Salmon Run, so Ken will have the station open for another casual multi-op in this QSO Party.

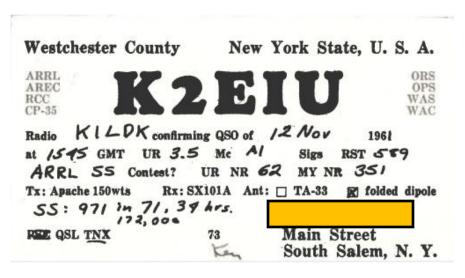
We're looking for some good station building/operating/problem solving talks for future meetings. I know N6TV has a talk for us, along with K9YC. If you can present one for the Club, let lan or I know.

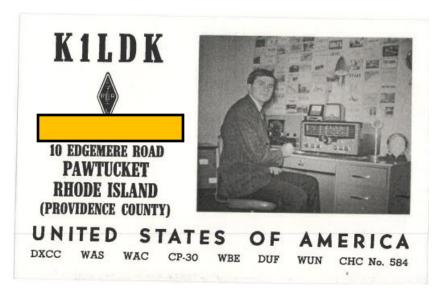
### **QSL** card Trivia

Do you know who these are?







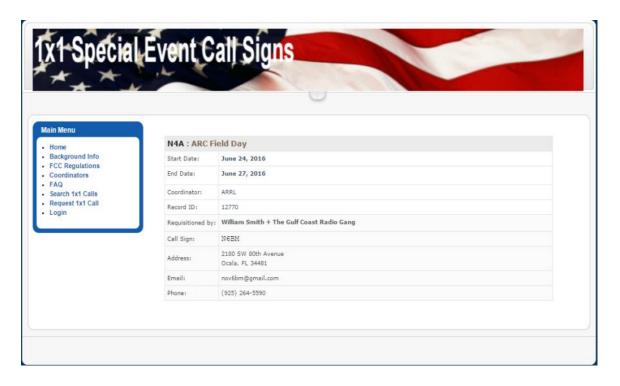


# Field Day 2016 From the Islands of Cedar Key, Florida by Bill, N6BM

Every Friday, a group of DXers gather together in Gainesville, Florida to have lunch, chat about DX and plan for the next Field Day. This year was my turn to organize this special ARRL event.

Everyone in our Friday lunch group knows I'm a former member of the NCCC and an Associate member of the NCDXC. Being a contester, an avid DXer and a prior profession in project management, I was up to the task of organizing our Field Day weekend. Outside of the fellowship with my DX buddies and great food, the ultimate goal was to achieve a high competitive score and exceed last year's effort. I've included a few photos of how Field Day went for us on the Gulf coast in Florida.

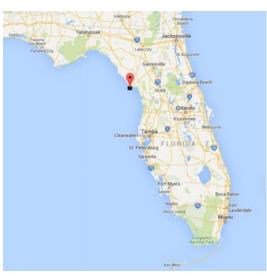
I asked if anyone in the group would have a problem with me submitting an application for the special event call N4A. I thought it would be really cool to have such a great 1x1 call that was easy and fast to send on CW. With all heads around the table nodding in agreement, I went ahead with my application to ARRL and within a couple of days, we had secured our FD call. We were now officially "The Gulf Coast Radio Gang"... at least through the weekend.



I found out that one of our CW guys owns a second house on the shores of the Gulf of Mexico in Cedar Key, FL. When he and his XYL agreed to allow us to operate FD from there, we all agreed that it would be a great place to operate.

Cedar Key is a perfect radio location as it is located on an island, (IOTA NA-076) and is located in rare Levy County. Not only would we be surrounded by salt water on the west coast of Florida, our antennas would have an easy shot over the Gulf of Mexico and across the country.





My next goal was to send our ARRL N4A approval to the administrator of QRZ so that I could come up with our Field Day page with some information on our event. <a href="https://www.grz.com/db/N4A">https://www.grz.com/db/N4A</a>



(Setting the guy lines for a 10-80 OCF dipole)



I knew I needed to figure out how I could share information between eight people and I decided to start with a Field Day Document on Google Docs. Each person on the team had the ability to add their ideas, equipment, etc. to the document. Being able to share information in an informal way in real time proved really valuable for everyone from what radios, antennas, food, etc to bring including the operating schedule. It also allowed us to be more efficient by not duplicating our efforts.

Our guys had to effectively plan and organize what to bring as Cedar Key is a fishing village of a population of only 800 year round residents. Being pretty remote, it would be a long drive back home for anything forgotten!

Cedar Key has no chain stores, no signal lights and only one police car driven by the Sheriff. Most folks just get around in golf carts and pickup trucks...pretty laid back by Bay Area standards. Folks wave to each other as they pass by each other as just being friendly. It really was a step back to a less complicated time.

We had four CW operators and 4 phone guys and we felt that by being right on the shores of the Gulf of Mexico, the salt water would give us a huge advantage with a high score.

I decided to send out a Field Day announcement on my Twitter page @N6BM and it didn't take any time at all to receive an email from Bernie of the Daily DX. He contacted me as well as the folks at IOTA to put N4A on the announcement page and calendar. We were quickly feeling that we were going to be the DX at least to the rest of the world and the excitement was growing. Very quickly

our N4A QRZ page was showing over 800 people visiting the page.

Early morning on Field Day was spent stringing dipoles between palm trees and walking up vertical antennas. Coax was run all over the backyard and SWR was checked. In the photo below you can see Noah, W4IEI helping to set up. Noah flew in from San Jose (he works at Apple Computer) to spend the weekend with us as he was one of our CW ops and chief networking guru. We were fully networked on WIFI so our logs stayed continuously up to date. Networking logs was great as we had a couple of operators in a camper in the backyard.



Noah, W4IEI helping to set up radios and computers



Operating from the camper and networked to the N4A master log



Checking SWR on a new Cushcraft R9 10-80 meter vertical

Page 10



A cake was made to mark the event and we were ready to get on the air

Here's the sad part, unfortunately propagation was miserable during our Field Day weekend. To quote Space Weather.com: "Our star looks like an enormous yellow billiard ball." We were finding that we could copy better than the other person could hear. Fortunately we had plenty of really good food and drink and any weekend spent with your ham buddies playing radio on an island can't be all bad.

We'll be back for 2017!



# W6SR's 50MHz EME array.

It looks small (from a distance) but the center of each antenna is 20' and the antennas are M2 6m7's, which are 27' long.

This is what I have been doing for the last month....de Rick,W6SR





# A twist on distance-based scoring in CQWW contests

#### Denis Pochuev – K7GK

#### Motivation

Recent discussions on CQ-Contest reflector stirred my long-running desire to try my hand in devising an alternative set of rules for CQWW contest, which would address some of its most glaring inequities. There are several points of view on this subject, including those by the people whose opinions I highly respect. Some of them describe such proposal as a fool's errand or an impossible task. Granted, it is impossible to come up with a scheme that would address all rule inequities in CQWW. However, I believe that this proposal is based on a unique approach and achieves its goal of addressing some of the problems with scoring in CQWW contest.

Main problem this proposal attempts to address is that the contacts with vastly different difficulty often result in the same points or multipliers given. In particular, current set of rules favors the stations on the edge of zones, which are close to the large ham populations centers and are located on a different continent. While it is not possible to objectively assess the difficulty of a contact, various proxies for it have been previously proposed, such as distance between the stations making the contact. Typical proposals include either modifying the exchange to include QTH information, such as grid squares, or to use a database containing necessary data to compute distances. Either of these approaches is quite difficult to implement.

#### **Proposal outline**

My proposal does not require any changes to the exchange and instead of using the distance between stations' QTH, it would be based on the distance between zones. Moreover, the distance I propose to use is NOT a commonly proposed great circle distance, instead the point calculations would be based on the metric associated with the adjacency of the CQ zones. By that I mean that the points for contacts would remain integer and would increase based on how many other zones a path between stations would have to traverse to get to the zone of the destination. Here, though, we are not talking about the literal signal path, instead we will base the point calculation on the graph connecting neighboring zones. More on the graph below.

#### **QSO** points

In particular, for contacts within your own country you would still get 0 points. This is an important rule to encourage DX contacts and I see no realistic way to change that without changing the nature of the contest. For each contact with a different country within your own zone, one point is given. For each contact with the zone, bordering one's own zone, two points are typically given. I say typically, because in some cases exceptions make sense. For instance, population centers in zones, say, 5 and 14 are quite far from each other despite zones sharing a border. Therefore, assigning the same point value for the contact between those zones as for the contacts between zones 4 and 5 or 14 and 15 seems unfair. Today's rules address this by giving 3 points for the contacts between different continents, which is rather simplistic in comparison. In my proposal the point value for contacts between different continents would vary. Technically points are assigned not to the contacts, but to the segments of the path between zones representing a contact, plus additional one point for contacts with different countries within one's own zone. World map is represented by a graph, where each vertex is a CQ zone and edges connect only those zones that are adjacent on the map (see figure 1). Each segment is assigned a value of 1 or 2 points. Some segments that cross continental boundaries are given 2 points, while others, such as between EU, AS and AF or between NA and SA, are given 1 point. 1-point segments are colored in green on the diagram below, while 2point segments are red.

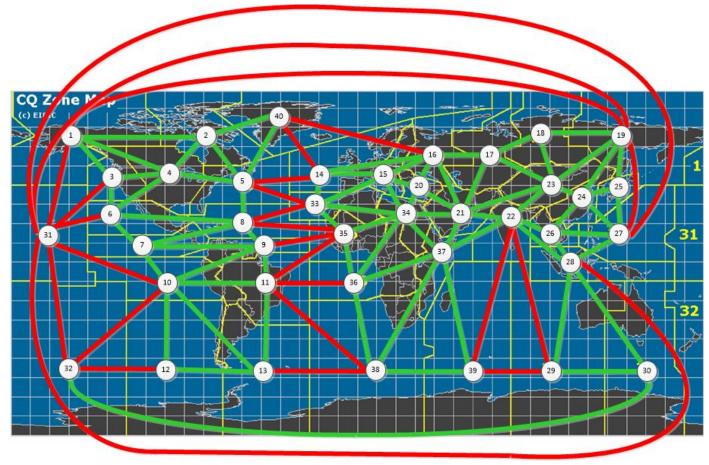


Figure 1 - World map and distance factor graph

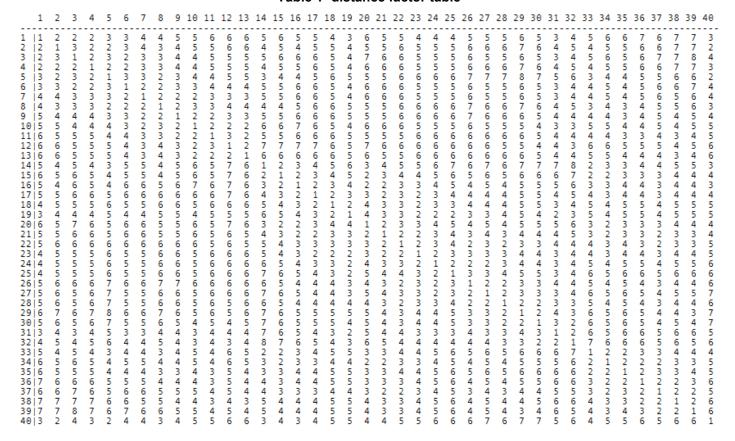
For example, for contacts between adjacent zones 1 and 3, 2 points are given, while for contacts between zones 1 and 19, 3 points are given. This is because each contact outside your own country gives a point, plus 1 point for a 1-point edge in case of zones 1 and 3 or plus 2 points for a 2-point edge between zones 1 and 19.

In general points for contacts are calculated based on the shortest path between the zones on the zone graph plus the point for a contact outside your own country.

Let's consider another example, say of a contact between zones 4 and 25. Shortest path goes through zones 1 and 19 (4-1-19-25). Each of those segments is 1-pointer, except 1-19, which is a 2-point segment. Therefore, a contact between zones 4 and 25 is worth 1 (outside the country) + 1 (4-1) + 2 (1-19) + 1 (19-25) = 5 points.

Based on this approach all points for all contacts have been calculated and are given by the following distance factor table:

Table 1- distance factor table



First column and first row are the zones, while the rest of the values represent the point value for contacts between various zones.

Note that a neat side-effect of this approach is that polar paths are typically given higher value than non-polar by virtue of having to go through multiple zones to get to the opposite one across the pole.

#### **Multipliers**

Basis for multipliers in my proposal is the same as in the current rules. There are country-based and zone-based multipliers counted once per-band. There are some differences, however, which, I believe, help address current issues with the rules, while maintaining the spirit of the competition and requiring minimal changes otherwise. In my proposal multipliers have different values, based on the same principle and the same distance factor as the points. That is, for working a new country in your own zone you get 1 multiplier point. However, for a country in a different zone you get multiplier points according to the distance factor table (Table 1). For example, working a new zone 14 country from zone 5 gives an East Coast station 3 multiplier points, while working the same station in zone 14 from zone 32 would give a Kiwi station 8 multiplier points. Zone points are similarly weighed by the distance factors. However, zone multiplier points are additionally multiplied by 4 (zone scaling factor) to give them roughly equal weight with the country multipliers. There are about 4 times as many country multipliers available as there are zone multipliers in an average contest. Additionally, scaling zone multiplier points would give them more equitable weight, while encouraging working those far-away zones even more.

Now another example. Let's say KZ7ZZZ in zone 3 works just two contacts in a CQWW contest, DA1AAA in zone 14 and ZL1ZZZ in zone 32, what would be his score?

Points: DL1AAA is in zone 14 with the distance factor of 5 between zones 14 and 3. ZL1ZZZ is in zone 32 with a distance factor of 4. Thus the total number of points is 9.

Multipliers: DL1AAA contact would give 5 country multiplier points and 5\*4 zone multiplier points for a total of 25 multiplier points. Similarly ZL1AAA contact would give 4+4\*4 = 20 multiplier points.

KZ7ZZZ's total score, thus, is (5 + 4) \* ((5\*1 + 5\*4) + (4\*1 + 4\*4)) = 405 points.

Impact on the scores in different zones

A number of comparisons can be made to assess the impact of the new rules. We'll look at the top 2 multi-multi scores from the US in zones 3,4 and 5.

The table below captures the scores and the score calculation details, such as number of points, zone and country multipliers and points per QSO. Each callsign has two lines of scores, one according to the current rules, the other according to the proposed rules. Below the table are the ratios of the average scores in each of 3 zones.

Table 2 - US M/M station results in zones 3, 4 and 5

call'year	total score	#ofQs	Points	Z mlts	C mlts	pts/Q
N6R0'14	13,718,142 214,860,895	6,193	16158 30655	195 895	654 3429	2.61 4.95
NK7U'13	11,451,372 175,584,136	5,440	14243 27176	188 842	616 3093	2.62 5.00
NR5M'11	21,253,000 272,835,200	8,204	21253 36800	206 913	794 3762	2.59 4.49
K0RF'14	18,040,320 240,230,952	7,277	19440 33477	207 933	721 3444	2.67 4.60
K3LR'14	37,486,260 379,765,962	12,858	35532 51417	215 962	840 3538	2.76 4.00
W3LPL'14	33,814,900 340,287,701	12,034	32830 47177	211 939	819 3457	2.73 3.92

z5 / z4 / z3 2.83/1.56/ 1.0 current rules 1.84/1.31/ 1.0 proposed rules

It should be noted that the data calculated according to the proposed rules is an approximation. It reflects simplifications, such as using claimed scores, and possible bugs in the software used to compute it.

Some interesting conclusions can be drawn from the data. While the increased points for farther QSOs, country and zone multipliers evens out the scores between zones, it doesn't come close to equalizing those differences.

#### Changes to the contest rules

This proposal in some sense minimizes the changes to the current rules, such as preserving current exchange or not changing the fundamental objective of the contest. The changes to the rules are confined to changes to chapter IV - Scoring. Below is the updated version of chapter 4.

#### IV. SCORING:

A. Score: The final score is the result of the total QSO points multiplied by the sum of zone and country multiplier points. Example: 1000 QSO points \* (30 Zone points \* 4 + 70 Country points) = 190,000 (final score).

B. QSO Points: Stations may be contacted once on each band. QSO points are based on the location of the station worked.

Points for contacts between stations are calculated based on CQ zones of each of the stations according to the Table 1.

Contacts between stations in the same country have zero (0) QSO point value, but are permitted for zone or country multiplier credit.

C. Multiplier: There are two types of multipliers.

Zone: Multiplier points for each different CQ Zone contacted on each band are based on the zones of each of the stations and given according to Table 1. The CQ Worked All Zones rules are the standard. Total zone multiplier points are multiplied by a zone scaling factor of four (4).

Country: Multiplier points for each different country contacted on each band are based on the zones of each of the stations and given according to Table 1. The DXCC entity list, Worked All Europe (WAE) multiplier list plus IG9/IH9, are the standards for defining country multipliers. Maritime mobile stations count only for a zone multiplier.

#### Areas of future work

Software that computes the scores according to the proposed rules can certainly be improved. If should include accurate error checking or use the error checking information obtained from the contest sponsors or log checkers.

Further calculations on historical data available through CQ's open log can be done to analyze impact of the proposed rules on other areas of the world.

Several adjustments can be made to the proposed rules. For instance, segment point values can be further diversified according to the distances between ham population centers in each zone or given other integer or fractional values. Values can also be adjusted based on the skimmer archive data, which can serve as a measure of the difficulty of the contacts between different zones.

Moreover, similar approach can be applied to other contests. IARU contest already uses ITU zones in its exchange. Similar scheme can be applied to the score calculations in this contest without much upheaval. ARRL DX contest can do so with a change to its exchange, whereby DX stations would send zones (ITU or CQ) instead of power level. This data can be used to calculate scores using the zone-adjacency approach.

# Sierra Chapter BBQ August 28th 2016





It's time once again for radio-active relaxation in the High Sierra! This almost-annual event is a great way to breathe some fresh air and see some of our contesting friends. The burgers and dogs are pretty good, too. I usually try to do this in September, but once again my calendar doesn't allow that, so we'll try late August and hope it isn't too hot.

Date: Sunday, August 28, 2016

Time: 11:00 AM until folks leave

QTH: 12921 Filly Lane, Truckee, CA (aka Filly Way) ... on the bluff overlooking Boca Reservoir. Beware old GPS databases that may be incorrect. See below for directions.

Tel: 530-587-3164 House or 408-896-0476 Cell

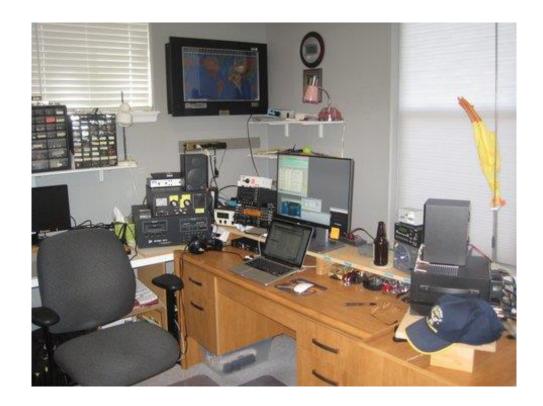
Who: Friends from NCCC, MLDXCC, Truckee-North Tahoe Hams, and their kids, pets and significant others. Feel free to bring other radio friends but please let me know how many.

Food: Ann and I will provide the grill items and a few salads and drinks. If you wish to bring something more, please let me know what salad, side, beverage or whatever you have in mind so we can avoid too much duplication. Please don't bring any meat or shellfish items.

**RSVP**: Please reply directly to me as soon as possible and let me know how many to expect. I'll give you the new gate code in response.

What else: The Tahoe Sierra is a great place for a getaway. Come on up for the day or make an extended weekend of it. It should be warm enough for swimming or water skiing. (The rafting season did resume this year, but will probably be over by then.) Fishing, hiking, biking, boating, birding, soaring, flying, gambling, photographing, and partying should all work well (except that the fish up

here are pretty darn smart). These and other possibilities are all arrayed online for your googling pleasure. I sometimes take folks on a flightseeing tour around Lake Tahoe in the morning in my single-engine Cessna which was fully refurbished in 2015 and is still looking pretty spiffy. Let me know if you're interested in that.



Directions: Go east or west on I-80 to the Hirschdale exit, about 8 miles east of downtown Truckee. At the bottom of either ramp, turn right onto Hirschdale Rd. About 1/4 mile past the interchange, keep right onto Glenshire Dr. About a mile later, at the top of the hill, take the first right on Whitehorse, immediately confronting the Damn Gate of The Meadows. Enter the new gate code slowly and deliberately on the finicky keypad, including the pound sign. Email me for that code! Through the gate, take an immediate right on Stallion. Roughly a mile later, after three nasty speed bumps, take the first right on Filly. Two blocks later, at the cul-de-sac, take the rightmost driveway. There is parking in a pull-out at the top of the driveway.

Please fill up the space beyond the asphalt first, leaving room for cars to turn around. If the turnout and the space beyond are full, try the lower reaches of the driveway wherever you can do so safely or on the street or cul-de-sac. Beware of rocks and bits of re-bar sticking up along the driveway shoulder and try not to run over any (mostly green) utility boxes.

Hope you can make it! Ann and I look forward to seeing you in the Sierra. 73,

Rick N6XI and Ann KD6MOB

# **CW Ops**



Bruce Meier (N1LN) has taken on the responsibility to assist with the promotion of an upcoming worldwide CW event. He asked if I would be willing to assist him in getting the word out to our club, which I quickly agreed to. The following information was provided by Bruce. If you have any questions please feel free to email him directly at: n1ln@arrl.net.

Have you ever heard of the CW Operators Club? If not, it is a global organization that was founded in 2010 for the single purpose of promoting the use of CW. There are currently 1256 members worldwide. A few of the activities include hosting weekly on-the-air activities, provides CW training (known as CW Academy) and runs an annual CW Open contest. For more about the club please refer to: http://www.cwops.org/ For more information about the CW Open please read on.

The CW Open is made up of (3) separate 4 hour events that all occur on the same day. This year the event date is September 3, 2016.

Session 1 is from 0000 - 0400Z. Session 2 is from 1200 - 1600Z. Session 3 is from 2000 - 2400Z

All amateurs worldwide are invited to participate as you don't need to be a CWOps club member. There is only one category (Single Operator) and one mode (CW of course). You also get to select your power category from QRP, Low Power to High Power. The exchange is also quite simple and includes only your QSO number and name. (ie: 25 Bruce) As the event sessions are standalone, please send your individual Carbrillo formatted submissions to http://www.b4h/net/cwops/. NOTE: Paper logs are not accepted. Just a couple more facts. For a list of computer logging programs that support the CW Open please refer to: www.cwops.org/cwopen/html. Finally, many of us like to participate as a team member which is very popular for the CW Open. For more info about team competition, including how to register your team, please refer to: www.cwops.org/cwopen.html.

If you have questions please feel free to refer to the CW Operators website HOME page at http://www.cwops.org. On the left side there are numerous buttons that will provide additional CW Ops information. One of them about mid-way down the list is the CW Open. Should you have additional questions, please feel free to email me directly at: n1ln@arrl.net.

Finally – I hope to get you in my log for all 3 sessions and for many bands!

73, Bruce – N1LN CW Open - IARU Region 2 Coordinator



# You are invited to CW Open...

When? 3 September 2016

Session 1: 0000-0400 Z Session 2: 1200-1600Z Session 3: 2000-2400Z

Each session is separately logged, checked and awarded. 3 separate contests!

Who? Open to all amateur radio operators, worldwide

Modes? CW only

**Operator categories?** Single operator

Power categories? HP (more than 100 watts); LP (more than 5 watts up to 100 watts); QRP (5 watts of less)

Use of spotting? No limitations on spotting but no self spotting.

**Exchange?** QSO number + given name (e.g. 12 John).

**Scoring?** 1 point per QSO per band (each session); 1 multiplier for callsign the first time it is worked (each session). Scores start at 0 for each session. Work someone once per band per session.

**Reporting?** Separate logs for each session. Logs must be in Cabrillo format and may be submitted via <a href="http://www.b4h.net/cwops/">http://www.b4h.net/cwops/</a> Paper logs are NOT accepted!

Logging? CW Open is supported by many logging programs. See <a href="https://www.cwops.org/cwopen.html">www.cwops.org/cwopen.html</a>

**Teams?** Team competition is supported (see <a href="www.cwops.org/cwopen.html">www.cwops.org/cwopen.html</a> for signup). No geography limitations.

#### **NAQP**

# North American QSO Party

#### Fred K6DGW

The CW and SSB NAQP's are coming up on Sat 6 Aug and Sat 20 Aug respectively for those of us out here on the Western Frontier. Since it's summer, they run from 1100 PDT to 2300 PDT [1800Z to 0559Z]. The NAQP's are focus contests for NCCC this year plus we have the Tri-Club Challenge [see below]. These are fun contests for a number of reasons, they don't take the whole weekend, most butts can do 10 hours in the chair since you get some breaks, and NAQP's are low-power only [max power=100W]

#### Basic rules are:

Single ops can log up to 10 of the 12 hours.

Breaks must be at least 30 minutes or more

LOW POWER! [≤100W] Turn off the amp! [best to write yourself a note ⊚]

Exchange is a name or nickname and state/province. Non-NA will send name and DX

Mults are US states [incl KH6/KL7], VE provinces and territories, and NA countries [except K/VE]

Mults are counted on a per-band basis, if you need one on another band, you can ask him to QSY

160, 80, 40, 20, 15, and 10

Logs will be due 7 days later. Not to worry, one of us will remind you

Full rules are at www.ncjweb.com/NAQP-Rules.pdf

**Tri-Club Challenge:** For several years now, we've been part of an inter-club challenge with PVRC and SMC to post the highest TCC score. Basically, it's simply the sum of every club members score ... with one wrinkle: we get to multiply that sum by the number of members who participate in the contest. Now, SMC and PVRC also get to do this, of course, however the definition of "participation" is, at minimum, "make one Q and submit your log." So ... even if you can't make the whole 10 hours, any on-air effort makes you a "P-mult." And, your score adds to the club total as well.

**Strategies:** Most folks take three breaks ... one in the afternoon, one for dinner, and one later in the evening. 160 usually heats up in the last 30 mins or so. With summer conditions plus a nearly quiet sun, you may want to tailor your off-times to band conditions. Just make sure that at least 31 minutes elapse from your last QSO before a break to your first after the break.

continued

**Teams:** NAQP provides for clubs and groups to form 5-station teams whose scores will be summed for a team competition. NCCC usually fields anywhere from 5 to 10 teams. I'm going to flog for and assemble the NAQP CW teams and maybe the SSB teams if things work out for me. Information we'll need is:

On-Air Call
Operator Call
Station Call
Single-Op or M2

Best estimate of level of effort you can mount+ equipment/antenna challenges you may face

**Name:** You can choose any "name" you wish. Short is good, familiar helps. I will use a nickname given to me by my troopers 50 years ago [there's more than one but the rest are not radio-friendly].

I really enjoy the NAQP's, they tend to be a bit laid-back, CW speeds are less than the NA-Sprints, and I run into a lot of old friends. Our move to NV last year restricted me from them but I'm back on the air at home and remote to W7RN, and I'll be using that 80 m yagi in this one.

It's been my observation that the attention span of contesters extends only to the next contest. Consequently, we'll start the team sign-ups for the NAQP CW next Monday. Stay tuned and mark your calendars.

73,

Fred ["Skip"] K6DGW

### **QSL Card Trivia—Answers**

K4BVD is now W6OAT K2EIU is now N6RO K1LDK is now AJ6V K4TKM is still K4TKM

73, Ed AJ6V

#### JUG Articles Wanted!

Without your help we cannot reproduce a quality newsletter so please consider submitting a suitable article!

We welcome any and all relevant articles for inclusion in the JUG.

Deadline is 7 days before month end. Preferred format is MS Word, Arial 12 point and pictures should be full resolution. Send your material to lan, W6TCP at w6tcpian@gmail.com Don't worry



NCCC Members,

Upon taking over the Secretary role at NCCC, I was introduced to the NCCC membership roster. This excel membership list had in excess of 700 member entries across several tabs. Previous NCCC secretary's had clearly put a lot of work into keeping the roster updated and maintained. The successful management and maintenance of the roster requires constant involvement between the <a href="Member">Member</a>, the <a href="Secretary">Secretary</a> and <a href="treasure">treasure</a> to keep the information current and accurate! Not surprisingly, this is a lot of work!

In studying the workflow of new member onboarding, member renewals and event planning it became apparent in a very short period of time that a club of our size needed a new and improved way of managing and tracking the membership. As I started researching ways other clubs handled this problem I found that medium to large clubs had moved away from managing lists via spreadsheets to web based portals that offered improved workflow and automated tools to reduce the burden on the members and officers.

Four different company's were evaluated and after a pilot of Member planet, the Board approved a 12 month subscription.

The Four key areas we are looking to improve with Member Planet are:-

- Improve process for members to manage and update personal information (address, contact information)
- Streamline membership dues with automated billing & reminders.
- Improve new Member workflow process.
- Improve tracking of various member status.

There are other possible improvements (contest signups, event invitations, award & sponsor sign ups) but these will be evaluated in the coming weeks.

Member planet have assigned a Director of Onboarding & Engagement to assist us with the migration from the spreadsheet to web based portal.

During the next few weeks you will start to see additional information as we start the migration to our web based portal. Like all change, there are most likely some challenges ahead. We hope the members will accept the change in a positive light and see the benefits that it brings to the membership and officers alike.

Its also worth recognizing the previous NCCC secretary's who did such an outstanding job keeping the home fires burning with the spreadsheet. Its now time for us all to work smarter, not harder!

Ian Parker W6TCP NCCC Secretary (& JUG Editor) 2016/2017

# memberplanet

# FAQ'S

#### So how does this work?

The Member planet web portal requires that each member creates a username and password. Within your account, you can manage your address, contact number, email and if you choose, membership renewals.

#### Is Member Planet Secure?

You can read general questions about Member Planet here:-

https://support.memberplanet.com/hc/en-us/articles/202099154-Is-MemberPlanet-Secure-

You can read the Member Privacy policy here:-

https://www.memberplanet.com/MP Registration/PrivacyPolicy.htm

Members are also encouraged to safeguard passwords, as you would any other site you have i.e personal banking, social networking, QRZ.com and LOTW.

#### What information do you need?

Nothing more than name, email, address, callsign(s), phone number (s) and then your have your own personal username and password. Member planet also as fields for other information should you choose to populate them including social media but these are not mandatory and the choice is yours if you choose to complete these. NCCC will not use this additional information.

#### What other information will NCCC track?

NCCC also tracks non private information such as date joined NCCC, last dues paid date, if you fall within the 175 mile NCCC circle and what email groups your part of, general membership, BOD or announce lists.

#### What is the projected timeline for this migration?

The tentative plan for the migration is:-

•	Finalize and upload current roster	July 30th	(complete)
•	Treasure/Paypal configuration	July 30th	(complete)

Clean up and validate information Aug 4th
 NCCC Website updates Aug 4th

Start email transition with members
 Continue with Member Cleanup/updates
 Aug 5th—Aug 30th
 Sept 1– Oct 30th

#### What happens if I have questions or need help?

Contact the NCCC Secretary, Ian W6TCP at w6tcpian@gmail.com

#### What about the payments?

All payments through Member Planet are linked directly to the NCCC Paypal account.

#### What is the process for new members wanting to join NCCC?

When the website changes have been completed, anyone wanting to join NCCC will go to a membership link on the website and follow the on screen instructions. The application will be placed in a pending status until the member is voted upon at the next NCCC meeting. Thereafter, the new member will be notified and can join the NCCC family of Professional Contesters of California!

#### How will Membership renewals work?

Upon receiving the Member Planet invite for the first time in Aug to October, members will follow the sign in process and set up the account. If you have paid dues for 2017, you will not have the opportunity to pay dues again this year. If you haven't paid, then you will have the opportunity to pay should you choose to do so.

In June of each year. Member planet will initiate a renewal via email approx. 14 days before the renewal is due. Further reminders are sent at 7days and 3 days after. At anytime, a member can pay dues should they choose.

#### Do we expect any problems?

With all new deployments there are bound to be some teething problems. However, we are trying our best to minimize any issues whatsoever.

If you need help, get stuck or have questions, contact Ian W6TCP at w6tcpian@gmail.com. If need be, we can set up a phone call at a convenient time.

#### How about getting instructions and user guides for member Planet?

We are in the process of getting all the information to guide you through this process. For the computer experts the site is intuitive, however were make sure you have information available to help you.

#### What about the online roster on the NCCC website?

Nothing will change there as we will keep the NCCC website roster. The only difference is that we will be able to provide more frequent updates.

#### What should the members do?

The most important thing members can do (after logging in and setting up there account for the first time) is to make sure your information is accurate/current at all times! This is necessary for many reasons, the most obvious is keeping in contact with your fellow contesters!

#### What about Dues?

The policy hasn't changed regarding dues. However, with all clubs there are expenses that are incurred and the NCCC cannot exist without a strong bank balance. NCCC members and the Board of Officers truly appreciates members that are able to contribute financially to the club. Its only \$24 per year for full membership!

#### Northern California Contest Club Reflector—Guidelines

This reflector is devoted to the discussion of contesting.

This includes contests, station building, dxpeditions, technical questions, contesting questions, amateur radio equipment wants/sales, score posting, amateur radio meetings/conventions, and membership achievements.

This does not include personal attacks, politics, or off-subject posts which will be considered a violation of the Guidelines.

Violations may result in removal of the violator from the reflector and possibly from club membership in good standing.

# My QSY to KH6—by Alan AD6E / KH6TU

I've been asked a few times now why I moved to Maui, and what am I doing these days? Granted, the call AD6E is getting a bit dusty now.

I suppose the story would have to start in 1975. As a Vietnam era draftee, I did my involuntary servitude in the Navy. Not my idea of fun, but as with most tings in life, there's always some good in sour situations. I spent three years living in the Philippines, some of that time as a CW/RTTY operator sitting on the ship-to-shore circuits. My call? NPO

The good part of that was the fact that NPO was located way out in the boonies where typical US influence was much less than at the massive Subic Bay facilities. I met my wife there and our first daughter was born there. You can get a lot done in three years. It's a long story, but I'll stick to the subject.

Upon my retirement from the Navy (4 years was plenty, thanks!), we boarded a flight from Manila to SFO with a stop in Honolulu. Landing in Honolulu for immigration, my wife took one look around and asked "Can we live here?". Well, it took 40 years, but we're finally here.

Living in San Jose and working in Silly Valley was a good life. We bought a house on the typical small city lot back in '78 when I was not active in ham radio. In fact, I had dropped out for quite a while. Eventually I got back into it again and put a TH3 tribander on the roof. No HOAs to deal with. However, when N6TV opened the path to a legal tower in San Jose, I fell in line and got legal tower #3. Legal tower #2, and #4 no longer exist as their owners eventually moved out of town. #4 was the last legal tower in San Jose because the neighbors rose up in protest and made a big stink at City Hall. It'll take someone with some guts and perseverance to open that door again. It's possible.



A 72 foot crank-up is about the most one can put on a small city lot (60 x 120 feet) and I made the most of it with a two element shorty-fourty and a C31-XR. With a lot of effort and learning, the station got to be pretty good at high power SO2R. Unfortunately, the operator wasn't as good.

About three years ago I fell out of favor with my boss. I told him that I wasn't going to quit, but I wasn't going to do any more work for him either. I was out on the street the next day. At age 64 ¾ I wasn't about to find new work but with SS and Medicare, I'm doing fine. Over the years, I've dabbled a bit gambling in the stock market. I usually pick a gem and wind up loosing my shirt. But as the Vulture Capitol guys say; "It only takes one good one". I picked Tesla and that made up for all those other losses. My wife got busy and started studying Hawaiian MLS listing.

I've operated from KH6 a few times. An old friend had an excellent QTH in Lanikai – windward O'ahu where we did M/S several years as WH6H in the ARRL SSB contest. Lots of fun. Later I got a chance to visit Lloyd and operate WPX CW M/2 from KH6LC on the Big Island three years ago. I've always wanted to go back and operate with Lloyd again, but things started heating up with my wife's MLS hunt. After the WPX, we spent a week on Maui looking around but didn't do anything. I admit I was dragging my feet.

Eventually, her steadfast pursuit of a KH6 home resulted in a few trips there to visit with realtors. The housing market was recovering from being in the toilet for so many years after the big melt-down of 2008. We kept looking at higher end homes in rather dense population centers and I kept dragging my feet. Then one day we ran across this house on 2.7 acres of agricultural land and I stopped dragging my feet. It's a great QTH with wonderful views of Haleakala and the ocean, lots of fruit trees, great shot towards NA and not so bad shot towards EU ..... and an HOA.

OK, the good news is that the back of the lot is hidden from neighbors so no one will really notice if I put up a dipole or two.

We packed up some stuff and moved. The thought was that we would keep our San Jose house and commute spending about half time in each place. Our kids and grand kids live in the bay area and we weren't really looking to abandon. We found a young couple to rent half our house with the understanding that we can come back there any time we want and share the kitchen. My station stayed intact and operational. Well, reality doesn't always abide by your plans. We've spent about 95% of our time in Maui and only visit San Jose for a week or two every few months.

The only thing I brought to Maui from San Jose was one of two K3s, and a KPA500. My thinking is that I can easily hand carry the K3 back to San Jose and continue to operate the SO2R station. Well, reality set in and now .. two years later .. Every piece of equipment from San Jose is now here in Maui. Coming back from my last trip (Visalia), I brought the Acom2000 as checked luggage. The only thing remaining in San Jose is the tower and antennas. Still, I can hand carry one K3 and operate there if I want.

I operated with a set of dipoles for a year, but somehow that just wasn't satisfying. The HOA stayed ignorant of my antennas, but I started feeling out the neighbors about putting in a small tower that might be visible some times. No one seemed to mind. It's all pretty laid back here. Except one guy across the street who strongly recommended that I put in a formal proposal to the HOA Architectural Review Committee. I didn't realize it but he sits on that committee.

Despite that warning, I bought a US Towers MA770 tower and had it shipped to Maui. I found a local guy with a back hoe to dig a nice hole and fill it with cement. During the month I was waiting for the cement to set and strengthen, I got a letter from the HOA stating "We've noticed you have been doing unauthorized construction". Hmmm.... evidently someone saw the cement truck and turned me in. No choice now so I followed instructions and wrote up a "disaster scenario" proposal.

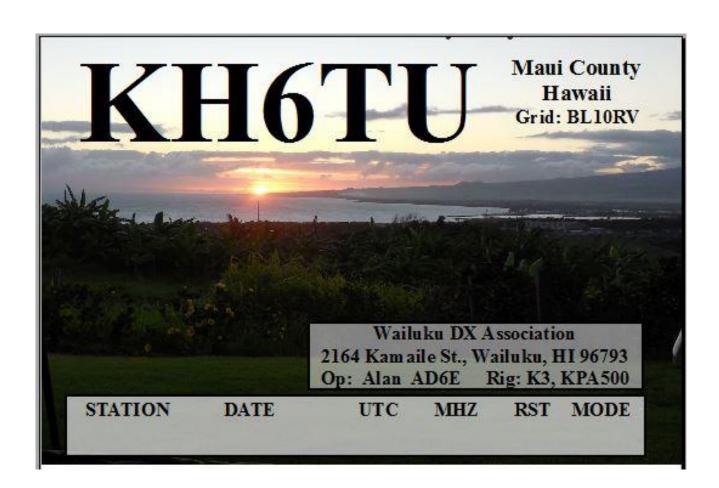
To make a long story less long (it's already too long), The HOA approved the tower. It probably helped that the HOA hired gun enforcer is a retired fireman and he really liked the Civil Defense aspect of my proposal. Anyway, just because you have an HOA doesn't mean they won't approve an antenna IF you work with them.

Photos here: https://picasaweb.google.com/117668077218135394042/TowerInstall2015

At this point, I now have a three element SteppIR on the 70 foot tower and it works great! I made 1777 QSOs in this past WPX CW, and 2800 QSOs in the ARRL DX CW event. This isn't exactly a rare DX location, but it's SO much better than CA.

Of course my CA call sign isn't very useful here. I filed for a club call and managed to get KH6TU. Now that's what I use all the time.

Aloha!



### **Point Generator Profile**

By Bob, W1RH

# Point Generator Profile Bob, W1RH

With a QTH right at the center of the club circle, Jim, WX6V, is one of the reliable point generators for both NCCC and MLDXCC. Here's his profile:

Name/Call Sign: Jim Venneman, WX6V

Past calls: W6PYX, K8DBW

Location: Auburn, CA

How much property do you have? 100 x 100 city lot off Highway 49

**Describe your antenna system:** C3-E at 63', Rotable 40 dipole at 55', and 80 meter inverted L. The C3-E is actually a "W6SR Special," as Rick designed this antenna and built it for me. It differs slightly from a C-3E because the 10 meter portion of the beam is fed separately from the rest. Rick also fabricated the 40-meter rotable dipole as well.

**What's in your shack?** Elecraft K3, Ten Tec Centurion amp, Heathkit SA-2060A antenna tuner, Wave Node WN-2 wattmeter, and Top Ten Devices band switching.

What are your previous QTH's? Cincinnati, Ohio, Winchester, Kentucky, and San Diego, Ca.

If you're working, what is your career? If not, what was your career?

Audit Manager – State Controller's Office – 23 years so far and still going!

Part-time instructor – U.C. Davis Extension Accounting Certificate Program teaching Auditing and Governmental/ Not-for-Profit Accounting classes

Private tax practice – James Venneman, CPA

**Married?** Yes – to Patty for 28 years **Kids?** 3 – son Jeremy - 35, son Aaron -33, and daughter Crystal - 30 **Grandkids?** Yes – 4 boys - Taylor, Ayden, Ethan, and Connor – all in South Carolina

**How many DXCC entities have you worked?** My current country count stands at 335/351. Still need FT5W (Crozet), 3Y (Bouvet), P5 (North Korea), and SV/A (Mt. Athos).

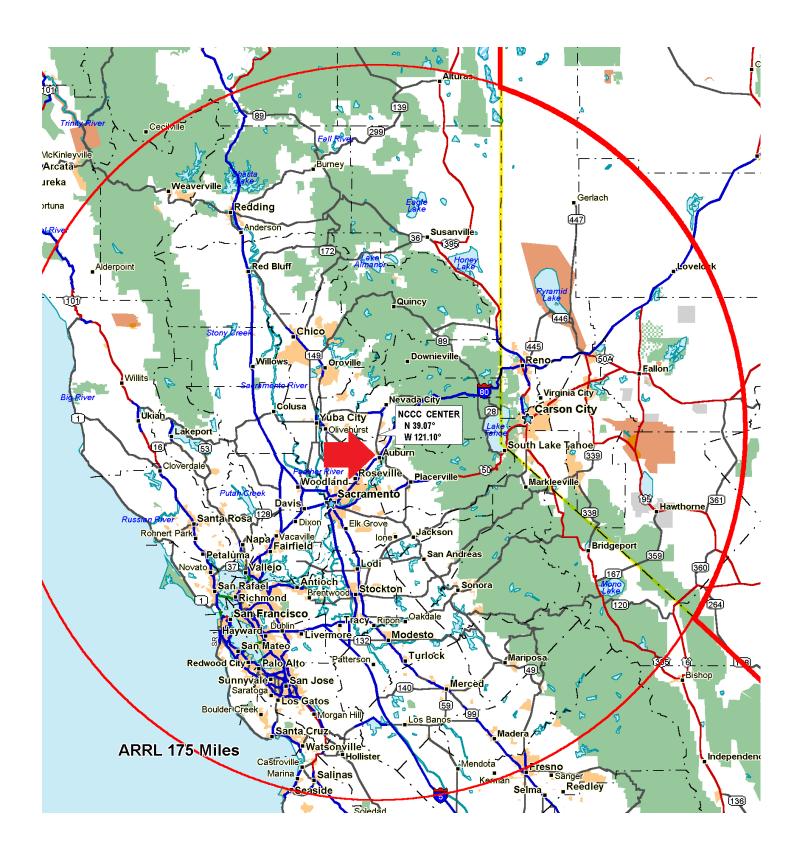
What's your favorite contest? The CQ DX Marathon (annually since 2009) and any of the WPX events (it's nice to be a "mult")

Any tips for contesters? With the advent of spotting networks has come the creation of instant pileups on newly spotted stations during contests. I've listened in on some of these pileups and hear some ops spending LOTS of time trying to get through the tangle of callsigns. This is a poor use of valuable time in any event. Instead, I put that station's frequency in memory and go on either continuing to call CQ on my run frequency or tune up/down the band for others calling CQ (S&P mode). I'll go back from time to time to that frequency in memory and will usually end up working the station quickly because there's much less competition. More often than you would think, I have found other stations from that same "rare" or "needed" entity elsewhere on the band and worked that same multiplier with ease. The point is – if you're in a contest to maximize your score, time spent in a pileup is not worth the time when you could be working other stations and making points. Even if that needed station is a new multiplier, I'd rather have 100% of the additional points made working other stations instead of 100% of zero points flailing away in a huge pileup and getting frustrated to boot.

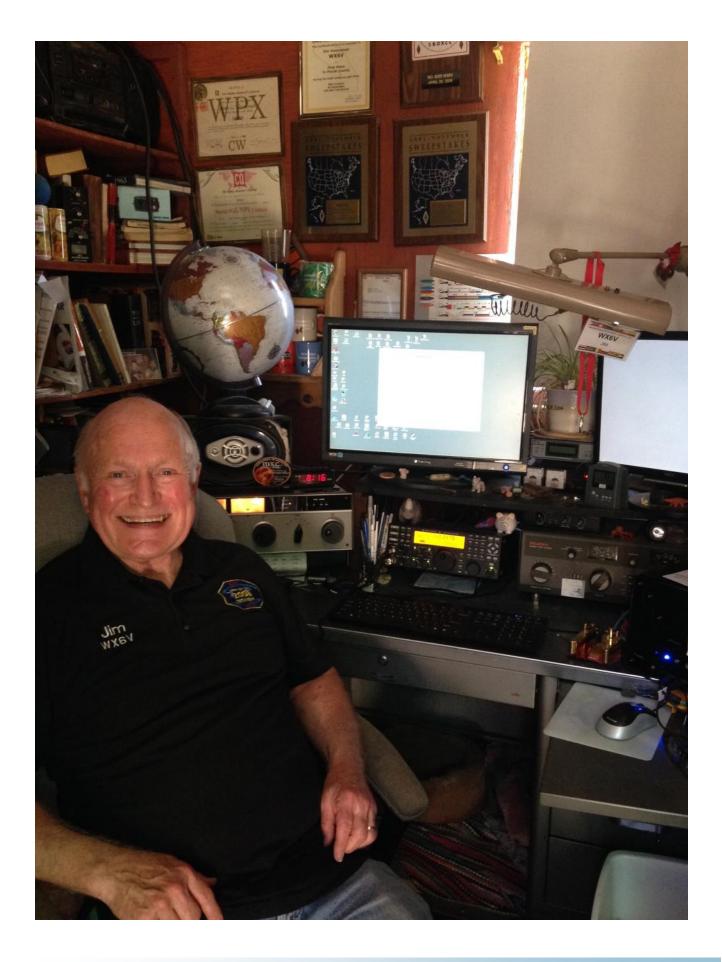
Another tip – I live on a 100x100 city lot, but still get out great. That's due in large part to the approximately 1,200 feet of wire that I have strung out throughout my yard as a radial system. Our soil here in Auburn is extremely poor (mostly rock) and the web of ground wiring below my antennas did wonders for my signal strength.

What would you like to see changed in NCCC? More club meetings that are within a reasonable driving distance from Auburn, even if the presentation was a repeat of what was offered at a meeting in the Bay Area,

**Any other hobbies besides ham radio?** Bowling - my wife and I bowl together in a scratch bowling league each week and also participate with our local Match Club travelling league, which takes us to bowling houses all over Northern California and Nevada. We also serve as Directors for our local bowling association (Mother Lode USBC) here in Auburn.



Page 32





WX6V Antenna's

# For Sale.....

I have a pristine TS990 and matching SP 990 speaker for sale. Both are in perfect working condition. I am the original owner, non smoking environment. Original shipping boxes & manual.





\$5,500 plus shipping and insurance.

Len, K6ANP len@geraldi.me

# **Member Awards**

After several months of waiting my #1 DXCC and DXCC Plaque, they arrived today!! FT4JA was my last one....



What a great day.... ;-)

Rich N7TR

# TUBE OF THE MONTH

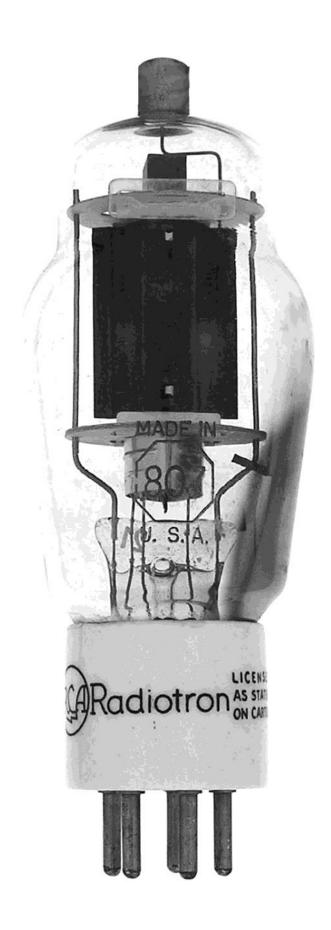
# Visit the museum at N6JV.com Norm N6JV

## 807

High power tetrode tubes had been in service since the late 1920s. Under certain circumstances, like during tune up, secondary emission from the plate could effect the screen grid and cause erratic operation. The screen grid current could go negative. With the pentode tubes like the RK-20, the extra "suppressor" grid prevented this. In 1936, RCA came out with the "beam" power tetrode. Instead of an actual grid as a suppressor, they aligned the control and screen grids and added a pair of deflector plates. The secondary emission was solved and the power handling capability was increased. This tube was the metal 6L6. To this day it has still not been resolved as to the designation of the beam tube as a tetrode or a pentode.

RCA wanted an actual transmitting tube to use this design, so in 1937 the glass 807 was introduced. It would operate at full ratings to 60 MHz unlike the 6L6 that died at 20 MHz. The low driving power characteristic of the 807 made it a big success. RCA made a 12-volt filament version called the 1625. The military quickly incorporated the 1625s into their new aircraft. A pair of 1625s could be driven by a low power VFO and their 12-volt filaments could be run in series for operation directly from the aircraft's 24-volt power system. Additional 1625s were used as the modulator. The ARC-5 transmitters were made in great numbers and are still a collector's item today.

Before and after WWII, the hams loved the 807. They were used as RF and audio amplifiers in many QST articles. Many commercial ham rigs used both the 807s and the 1625s. After the war, 1625s were available surplus for 25 cents. It is one of the few tubes that became part of ham slang even today. Going QRX to get a beer is still called "getting a cold 807".





# Contest Calendar – August page 1

ARS Spartan Sprint 0100Z-0300Z, Aug 2

Phone Fray 0230Z-0300Z, Aug 3

CWops Mini-CWT Test 1300Z-1400Z, Aug 3 and

1900Z-2000Z, Aug 3 and

0300Z-0400Z, Aug 4

NRAU 10m Activity Contest 1700Z-1800Z, Aug 4 (CW) and

1800Z-1900Z, Aug 4 (SSB) and

1900Z-2000Z, Aug 4 (FM) and

2000Z-2100Z, Aug 4 (Dig)

QRP Fox Hunt 0100Z-0230Z, Aug 5

NCCC RTTY Sprint 0145Z-0215Z, Aug 5

NCCC Sprint 0230Z-0300Z, Aug 5

TARA Grid Dip Shindig 0000Z-2400Z, Aug 6

10-10 Int. Summer Contest, SSB 0001Z, Aug 6 to 2359Z, Aug 7

European HF Championship 1200Z-2359Z, Aug 6

WAB 144 MHz Low Power Phone 1400Z-1800Z, Aug 6

North American QSO Party, CW 1800Z, Aug 6 to 0559Z, Aug 7

August UHF Contest 1800Z, Aug 6 to 1800Z, Aug 7

SARL HF Phone Contest 1300Z-1630Z, Aug 7

NAQCC CW Sprint 0030Z-0230Z, Aug 10

Phone Fray 0230Z-0300Z, Aug 10

CWops Mini-CWT Test 1300Z-1400Z, Aug 10 and

1900Z-2000Z, Aug 10 and

0300Z-0400Z, Aug 11



# Contest Calendar – August page 2

RSGB 80m Club Sprint, CW 1900Z-2000Z, Aug 10

MMMonVHF/DUBUS 144 MHz Meteorscatter Sprint Contest 2200Z, Aug 11 to 2200Z, Aug 13

QRP Fox Hunt 0100Z-0230Z, Aug 12

NCCC RTTY Sprint 0145Z-0215Z, Aug 12

NCCC Sprint 0230Z-0300Z, Aug 12

WAE DX Contest, CW 0000Z, Aug 13 to 2359Z, Aug 14

SKCC Weekend Sprintathon 1200Z, Aug 13 to 2400Z, Aug 14

Maryland-DC QSO Party 1600Z, Aug 13 to 0400Z, Aug 14 and

1600Z-2400Z, Aug 14

50 MHz Fall Sprint 2300Z, Aug 13 to 0300Z, Aug 14

Phone Fray 0230Z-0300Z, Aug 17

CWops Mini-CWT Test 1300Z-1400Z, Aug 17 and

1900Z-2000Z, Aug 17 and

0300Z-0400Z, Aug 18

QRP Fox Hunt 0100Z-0230Z, Aug 19

NCCC RTTY Sprint 0145Z-0215Z, Aug 19

NCCC Sprint 0230Z-0300Z, Aug 19

SARTG WW RTTY Contest 0000Z-0800Z, Aug 20 and

1600Z-2400Z, Aug 20 and

0800Z-1600Z, Aug 21

ARRL 10 GHz and Up Contest 0600 local, Aug 20 to 2400 local, Aug 21

Russian District Award Contest 0800Z, Aug 20 to 0800Z, Aug 21

Himalayan Contest 1200Z, Aug 20 to 1200Z, Aug 21

North American QSO Party, SSB 1800Z, Aug 20 to 0559Z, Aug 21

Feld Hell Sprint 2000Z-2159Z, Aug 20

CVA DX Contest, CW 2100Z, Aug 20 to 2100Z, Aug 21

SARL HF Digital Contest 1300Z-1630Z, Aug 21

ARRL Rookie Roundup, RTTY 1800Z-2359Z, Aug 21

Run for the Bacon QRP Contest 0100Z-0300Z, Aug 22

SKCC Sprint 0000Z-0200Z, Aug 24

Phone Fray 0230Z-0300Z, Aug 24



# Contest Calendar—August page 3

CWops Mini-CWT Test 1300Z-1400Z, Aug 24 and

1900Z-2000Z, Aug 24 and

0300Z-0400Z, Aug 25

RSGB 80m Club Sprint, SSB 1900Z-2000Z, Aug 25

QRP Fox Hunt 0100Z-0230Z, Aug 26

NCCC RTTY Sprint 0145Z-0215Z, Aug 26

NCCC Sprint 0230Z-0300Z, Aug 26

ALARA Contest 0400Z-1359Z, Aug 27 and

0400Z-1359Z, Aug 28

Hawaii QSO Party 0400Z, Aug 27 to 0400Z, Aug 29

YO DX HF Contest 1200Z, Aug 27 to 1200Z, Aug 28

W/VE Islands QSO Party 1200Z, Aug 27 to 0300Z, Aug 28

SCC RTTY Championship 1200Z, Aug 27 to 1159Z, Aug 28

Keyman's Club of Japan Contest 1200Z, Aug 27 to 1200Z, Aug 28

Kansas QSO Party 1400Z, Aug 27 to 0200Z, Aug 28 and

1400Z-2000Z, Aug 28

Ohio QSO Party 1600Z, Aug 27 to 0400Z, Aug 28

CVA DX Contest, SSB 2100Z, Aug 27 to 2100Z, Aug 28

SARL HF CW Contest 1300Z-1630Z, Aug 28

Phone Fray 0230Z-0300Z, Aug 31

**CWops Mini-CWT Test** 

# HAM RADIO OUTLET

#### 14 STORE BUYING POWER!



#### IC-7600 | All Mode Transceiver

• 100W HF/6m Transceiver, gen cov. receiver • Dual DSP 32 bit • Three roofing filters- 3, 6, 15khz . 5.8 in WQVGA TFT display . Hi-res real time spectrum scope



#### IC-7200 | HF Transceiver

- 160-10M 100W Simple & tough with IF DSP AGC Loop Management • Digital IF Filter • Digital Twin PBT • Digital Noise Reduction
- Digital Noise Blanker USB Port for PC Control



#### IC-7100 | All Mode Transceiver

• HF/50/144/430/440 MHz Multi-band, Multi-mode, IF DSP • D-STAR DV Mode (Digital Voice + Data) . Intuitive Touch Screen Interface . Built-in



#### ID-5100A | VHF/UHF Dual Band Digital Transceiver

 Analog FM/D-Star DV Mode
 SD Card Slot for Voice & Data Storage 50W Output on VHF/UHF Bands . Integrated GPS Receiver . AM Airband Dualwatch • FM Analog/DV Repeater List Function

#### ID-51A | VHF/UHF Dual Band Transceiver

• 5/2.5/1.0/0.5/0.1W Output • RX: 0.52-1.71, 88-174, 380-479 MHz\*\* • AM/FM/FM-N/WFM/DV • 1304 Alphanumeric Memory Chls . Integrated GPS . D-STAR Repeater Directory . IPX7 Submersible



### KENWOOD



#### TS-590SG | HF/50MHz Transceiver

• Equipped with 500 Hz/2.7 kHz roofing filter as standard • ALC derived from TS-990S eliminating spike issues . Antenna output function (shared with DRV connector) • CW - morse code decoder



#### TM-D710G | 2M/440 Dualband

• V+V/V+U/U+U operation • Built-in GPS • Built-in TNC for APRS & DX-Cluster operation • 50W 2M & UHF • 1,000 memories • Dual receive • Green or amber backlight colors • Latest APRS firmware w/new features . Sky Command II remote functions



#### TM-V71A | 2M/440 DualBand

• High RF output (50W) • Multiple Scan • Dual receive on same band (VxV, UxU) . Echolink® memory (auto dialer) . Echolink® Sysop mode for node terminal ops . Invertible front panel . Choice of green/amber for LCD panel • 104 code digital code squelch



#### TM-281A | 2 Mtr Mobile

. 65 Watt . 200 Memories . CTCSS/DCS . Mil-Std specs . Hi-quality audio

#### TH-F6A | 2M/220/440

• Dual channel receive • .1 - 1300 MHz (cell blocked) RX • FM, AM, SSB • 5W 2M/220/440 TX, FM • 435 Memories • Li-Ion Battery



# $oldsymbol{YAESU}$



#### FT-991 | HF/50MHz/2M/440 Transceiver

• 160 M-440MHz - SSB/CW/FM/C4FM Digital/AM/RTTY/PSK • 100 W (2M/4440: 50 Watts) • 3.5" TFT full-color touch panel operation • High speed spectrum scope . Roofing filers: 3kHz & 15kHz . 32-bit high speed floating point IF DSP



#### FTDX1200 | 100W HF + 6M Transceiver

• Triple Conversion Receiver With 32-bit Floating Point DSP • 40 MHz 1st IF with selectable 3 kHz, 6kHz & 15 kHz Roofing Filters Optional FFT-1 Supports AF-FFT Scope, RTTY/PSK31 Encode/ Decode, CW Decode/Auto Zero-In • Full Color 4.3" TFT Display



#### FT-450D | A100W HF + 6M Transceiver

- 100W HF/6M Auto tuner built-in DSP built-in 500 memories
- . DNR, IF Notch, IF Shift



#### FTM-400DR | 2M/440 Mobile

• Color display-green, blue, orange, purple, gray • GPS/APRS • Packet 1200/9600 bd ready • Spectrum scope • Bluetooth • MicroSD slot • 500 memory per band

#### FT-60R | 2M/440 5W HT

- Wide receiver coverage AM air band receive
- 1000 memory channels w/alpha labels Huge LCD display . Rugged die-cast, water resistant case . NOAA severe weather alert with alert scan





- RETAIL LOCATIONS Store hours 10:00AM 5:30PM Closed Sunday
- PHONE Toll-free phone hours 9:30AM 5:30PM
  - FAX All store locations

PHOENIX, AZ

- ONLINE WWW.HAMRADIO.COM
- MAIL All store locations

ANAHEIM, CA (800) 854-6046 BURBANK CA

(877) 892-1748

OAKLAND, CA (877) 892-1745

SAN DIEGO, CA (877) 520-9623

SUNNYVALE, CA (877) 892-1749

**NEW CASTLE, DE** (800) 644-4476

PORTLAND, OR (800) 765-4267

(800) 559-7388 DENVER CO ATLANTA, GA (800) 444-9476 (800) 444-7927 WOODBRIDGE, VA (800) 444-4799

SALEM NH (800) 444-0047 PLANO, TX (877) 455-8750



WWW.HAMRADIO.COM