



Publication of the
Northern California
Contest Club



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NCCC Meeting

Saturday 23rd April

11:30 am to 3:00 pm

Program:

Annual Awards and Officer Elections

Location/Venue:

Tied House Brewery 954 Villa Street,
Mountain View, CA

Watch the reflector for details or visit the
NCCC website for further information.

President's Report

Hey KB'ers,

It's hard to believe that I've been writing this
President's column for just about a year. Time
flies and, yes, I'm having fun!

How about those 2015 SS scores? I see the
CW results are out. NCCC had 40 logs submit-
ted, MLDXCC had 20, PL259 had 6 logs and
REDXA had 6 logs.

There are many ways to break down the scores,
and there are some huge ones among the mem-
bership. As far as the clubs go, the top scorer
for NCCC was N6PN, who operated from
N6TV's QTH, with 187,082 points. For
MLDXCC, it was W7RN, with N6TV operating
and a huge score of 218,954. PL259's top scor-
er was WA6O, who had 186,086 points, operat-
ing from N6XG. The top score in the REDXA
club was from K6SRZ, 174,798 points.

All of this brings to mind the question – still un-
answered – Is NCCC going to do SS this year?
I know W1SRD and N6DE wanted a decision by
mid-March. We've extended that a bit, but the
decision will be made soon.

If we do go for an all-out SS run in 2016, it is go-
ing to mean that most, if not all, of our active
contesting members contribute in some way to a
win. We have members who love Sweepstakes
and we have members who avoid the contest.
You will almost always see me with a respecta-
ble score in SS, and I do it for the team. Person-
ally, SS falls way down the list of my favorite
contests.

Continued on page 4



Officers:

President	Bob Hess	W1RH	w1rh@yahoo.com
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NCCC Net

Thursday 8 PM
 Freq: 3.610 +/-

NCCC

Visit the meetings page of the NCCC website [here](#) for details of the next meeting

NCCC Membership Information

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

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).

Nevertheless, we're a team and I have always felt that I need to do my part. If we do SS this year, I'm really hoping that those of you who are not SS regulars will do the same.

In this nearly full year as your President, I've learned so much about NCCC. I came in as the President, having been a member for several years, living in the hinterlands, and actually knowing little about the nuts and bolts of how this club operates. What I've learned in the past year is what I have always assumed. This is one awesome contest club and there simply is not another club like ours.

We sponsor CQP and have a committee running CQP that could just as well run CQWW. We have a newsletter that is absolutely the best newsletter in the contesting world. We have some of the best contesters in the world and we have some of the best technical and software gurus in the world. We also have a boat-load of pea-shooters, who seem to somehow rack up very respectable scores, and are so important to our mission of winning contests.

NCCC also sponsors Thursday Night Contesting, the NCCC Sprints. I must admit that I have never operated in a Sprint and, frankly, I really didn't realize the connection between NCCC and the Thursday Sprints. In fact, they're joined at the hip. Now, I know that N6ZFO, N6RO, K6MR, and others are just shaking their heads right now, at what I've written, but realize that I moved to back woods of NCCC from metropolis of YCCC. Unlike YCCC, where I never missed a meeting, I rarely attended NCCC meetings in my first few years here simply because it was such a long drive from Placerville, on a work day. What I knew about NCCC was pretty much what I read in the Jug and on the reflector.

I had asked Ken, K6MR, to write an article about the RTTY Sprints for the Jug a few months ago, and learned a lot. Likewise, I asked Bill, N6ZFO, to explain the NCCC CW Sprints and the NS Ladder to me. With Bill's explanation, I finally got the connection between the actual Thursday 30 minute Sprints and the NS Ladder competitions, where the scores are accumulated over a series of weeks.

For those who simply cannot sit in the chair for hours and hours, or for those who just want to practice, and, of course, for those who just want to have 30 minutes of contesting fun, the NCCC Sprints and just the ticket. Bill, N6ZFO, is the Director of NCCC Thursday Night Contesting; Tom, N3ZZ, is the CW NS Contest Manager, and Ken, K6MR, is the RTTY Contest Manager. Bill wanted to point out that there is a NCCC Thursday Night Contesting Advisory Board, consisting of some pretty well known hams from across the country. Included, besides Bill, are K6UFO, K4BAI, W9RE, N4AF, N3BB, W0BH, and W4NZ. For more information, you can go to <http://www.ncccsprint.com/>, which is just another terrific page maintained by our web guru, John, K6MM.

The March meeting was another one worth the drive. It was held at the Cattlemen's, in Livermore. Two excellent talks were given. Dean, N6DE, gave his detailed analysis of what it would take for NCCC to win the Sweepstakes gavel. Chris, N6WM, did a really nice on remote operation using the Flex 6000 series radios, which also included a live demonstration. I believe we had around 45 at the meeting and another 10 or so on the WebEx, as always, is run by Chris, KG6O.

Our April meeting will feature the annual NCCC awards and also elections. The location will be the Tide House, in Mountain View. Don't miss this one. You may just be one of the award winners!

Bob W1RH

The Pea-Shooter Chronicles: Sitting In the Big Boy's Chair

Gary Johnson, NA6O

Last month, I wrote about contesting from my very limited pea-shooter station. Just after finishing that article, to my great surprise, Ken, N6RO, invited me to join his crew at his Radio Oakley super-station for a multi-multi operation in ARRL DX CW. He especially needed a night shift operator for 80 and 160. It was a big step for me so I thought I might try to describe how my existing operating skills and expectations mapped into the land of the big guns.

The team consisted of:

Ken, N6RO

Chris, N6WM

Bob, K3EST

Mike, WA6O

Matt, WX5S

Dean, N6BV (operating remotely)

Andreas, N6NU (also new to this station)

Holy cow! No less than two CQ Contest hall of fame members, DXpedition experts, a famous author, all winners of so many contests of all kinds. And then there's little old me. Should I be worried?



Figure 1. Welcome to Radio Oakley. I had never seen such a station; let me count the towers... And there are even more!

Worry, Worry

Not everyone is cut out to be a great contester. As for me, I'm really not a very competitive person and I tend to worry too much (just ask my XYL). Getting ready for this big show, I had many concerns. Most of all, I didn't want to let down the team. Thankfully that didn't happen. In fact, it went incredibly well, thanks to the encouragement I received from all the team members. The way that I eliminate my worries is to address each one like a good engineer, and make sure that I'm well-prepared. That definitely paid off.

Wouldn't you know, I sat at the main SO2R position, but I'm nearly deaf in one ear (the bad one is more of a QRM generator than a listening device.) So Ken set the two rigs up where I could switch between them, working both 80 and 160 when nobody else was available. So there you go, another worry vanishes. That's the way it went, hour after hour, getting better and better.

Surprises (Pleasant and Otherwise)

Having a loud voice is fabulous. Regularly winning shootouts is truly a joy. I even beat K6XX once! That alone made my weekend. Related to being loud, I now understand the concept of *beaconing*, where we run continuously, proudly announcing that this band is open for business.

Working weak CW signals is something I'm pretty good at due to my limited station. With bigger/better antennas, you simply rescale the problem: My challenge became trying to work the very low-power JAs on 80, something I could never hear at home.

Having a station operating every band means you can just keep calling CQ (beaconing) even when the band appears to be dead, and sometimes you find out it's *not* dead.

Using N1MM in a networked environment was very useful. I could see everyone else's logging activity, as well as what frequency they were on and their run/S&P status. That gave me some intel on their operating practices. The multi-operator chat ("gab") feature was also available but we didn't use it much.

Interference between bands in a MM stations is a constant concern. For instance, the second harmonic of my 80 m transmitter could obliterate Mike's 40 m receiver, within a certain bandwidth. Sometimes Mike would wave his hand at me, signaling "Shut up for a second... I'm working a mult here!" I quickly learned to regularly check his QRG. Then there were various clicks and pops from the 160 m transmitter, and a few other unexplained events. Chris said, "That's multi-multi for you. Deal with it."

RF interference can be just as much of a problem as at my pea-shooter station. There was some nasty PG&E line noise on the low bands (and the 160 m Beverages were out of commission, too). We quickly become alligators in this situation. Still, being out in the country meant that the noise floor on most bands was dramatically lower than at my house. I... want... that...

Teamwork

The best thing about my MM experience was the teamwork and camaraderie. I wondered if I could remain BIC for all those hours—longer than I had ever operated before. Well, it was no problem because, like being in a war, you do it for your buddies. They work hard, so I work hard. It's energizing

and exciting. Having company in the middle of the night sure was nice.

Mentoring was continuous. Everyone had advice for me on operating procedures. All night long I had WA6O and WX5S there to help keep me focused, but also letting me know it's ok to take a break when you need it. We would step outside for a few minutes for fresh air and take a stretch. It's a hobby, last I checked, and it was nice to know that even the world's best operators take a break now and then. It was also great to talk with Mike about his many DXpedition experiences.

Later in the contest, I got to honk the horn whenever I worked a new mult. Everyone would cheer! I hear that this is common at multi-operator stations, and it gives you a needed boost.



Figure 2. Mike, WA6O, sat next to me running 40 meters darned near around the clock. Mike is hilarious: “Five watts! He’s running FIVE WATTS! Why is he doing this to me?”

Things to Learn

If you have never operated at a complex station such as N6RO, it pays to visit well before the planned operation. Ken walked me through the entire station: Antenna complement, switching, rotators, rigs, amplifiers, and so forth, as well as the creature comforts. Being of feeble mind, I furiously took notes, which I organized later into cheat-sheets in a small notebook.

Practice with the rigs, amplifiers, and logging software is important, especially if you have limited (or no) experience with the products they use. In my case, I had never used a K3, but that didn't take long to figure out; I even read the manual. I already knew the N1MM logger very well, thankfully. This is another of those places where my pea-shooter station served as an excellent classroom.

Planning

All contest operations—even our little solo activities—require planning if you want to achieve a high score. When you're trying to fill several chairs for 48 hours, it can get complicated. Chris, N6WM, was in charge of most of the scheduling this time. He and the others clearly had the necessary experience, and all the senior operators knew each other's habits and preferences well. So I pretty much went along for the ride, and did as I was told: "We need someone to do the all-nighters on 80 and 160." I'm good with that; that's the job of an entered apprentice.

Since the operating sessions were longer than I was used to, as well as keeping me up all night, I planned ahead and brought some creature comforts. A favorite chair, comfy clothes (ready in case the room got too hot or cold), snacks, some quick and easy food, and my sleeping bag in case the sleeping rooms overflowed. If you need to drive home after an all-nighter, like I did, please assess your state of alertness. I took a short nap on Saturday morning, then got in the car. No need to die on the highway home. I also brought my paddle and headphones. Overall, it felt a lot like home.



Figure 3. Here I am in the middle of the night, right at home at N6RO.

When to Search and Pounce?

This is one area that differs when you're the loudest thing on the band. I definitely called CQ a lot more than I would at home, and actually got results. But I was also given guidance, based on expected band activity, that S&P was common during certain hours, at least in this contest. I tried using the second receiver while running, but my one-ear situation made that more confusing than useful. Most of the time I would run, quickly work new skimmer spots, and get back to running. Still, I can really see the utility of SO2R and SO2V.

When I arrived for my shift Saturday afternoon, Mike needed a break and he appointed me to take over for him on 40 m for an hour. (Wow, sitting in Mike's chair; awesome!) Europe was just getting going, and I did a furious S&P the whole hour with a good rate and got a bunch of mults. I even scored Ethiopia, which was an ATNO for Chris (he gets credit since we used his call). Having stacked Yagis on 40 is something else...

Which Way do I Point My Antennas?

Never having used a directional antenna before, this was something I really had to get used to. I printed an azimuthal equidistant projection map [1] centered on our QTH, and marked several of the prime targets such as EU, JA, and BY. Then at least the angles made some sense. Next, I figured out which orientations of the four-squares and wire quads for the low bands aligned with those targets. Ken also gave me some guidance on typical azimuths versus time of day.

During the couple of hours I ran 10 m, the big stack of Yagis was at my disposal. (Yo! We got us a death ray!) Now I had even more degrees of freedom: Two independently-rotatable antennas (plus one fixed on the East coast), as well as a selector for which ones are active. Ken told me about the skew path to JA (point it at VK) that sometimes happens. By switching between two antennas, you can figure out which is optimum, and decide if you want everything pointed in that direction. I can see how all this becomes second-nature with time in the chair, but it's initially a distraction to the novice.

Antenna Switching

Multi-multi stations must contend with complex antenna switching. I've heard that some are more automated than others; the N6RO system only has a couple of manual transfer switches to worry about. You're not just trying to connect yourself to the right antenna, but you also have to avoid connection *two* rigs to the same antenna. In any case, my cheat sheet was very useful until I had gone through the motions a number of times. One thing that felt like home was an occasional situation where the best receive SNR was obtained on one antenna, while the highest signal strength was on another, and the only way to T/R switch between the two was manual. Now that's something I'm used to.



Figure 4. Left to right, NA6O, WA6O, K3EST, and N6WM.

Conclusion

N6WM @ N6RO claimed a score of 4,282,680, to which I contributed about 6% mostly from my 80 m operation. That's certainly the highest score on the West coast. It's amazing to watch the QSO and point counts go flying up. What a great experience. Thanks to all the guys for your advice and for having faith in the new guys. Ken has asked me to help out with station maintenance and upgrades, which sounds like fun. I'll definitely be back.

References

1. An online azimuthal equidistant projection map utility is available at http://www.wm7d.net/az_proj/az_html/azproj.shtml

Preparing for the Next SSB Sprint

Chris N6WM

After WPX SSB dont put those MIC's away! The first running of the rebooted SSB sprint last year (Feb) was the highest attended sprint of ANY mode of ALL TIME! and had a HUGE NCCC presence. I have now handed the leadership of this most successful contesting event to one of its greatest operators, Bob KW8N but remain on the SSB sprint committee, along with Tom NS6T who has written an all new back end scoring system and adjudication program that is fair, fun and balanced.

With awesome shirts awarded by drawing and unique and special ones for accomplishing WAS during the contest, along with drawings for REAL prizes for entrants who make a token participation score PLUS real awards(Lumber) from sponsors such as ICOM America, Force 12 and Gigaparts, this could be a fun and satisfying event for anyone!

Please read on!

If you have not operated it yet, find out what all the buzz is about! Little pistol.. pea shooter, big gun.. somewhere in between. you can all play and benefit!

You may recall that twice a year the NA SSB SPRINT comes to life for 4 exciting action filled hours of contesting on a Saturday evening....

The next event is right around the corner !

*****April 2nd (April 3rd GMT) starting at 0000 Z until 0400 Z*****

, you can jump in have some fun SSB CONTEST time.

Last year 367 different entries were received for the Feb 2015 event.
An all-time record for any Sprint contest regardless of mode!

Object is to work as many QSOs, and States, Provinces and NA countries as you can in just 4 hours. The contest includes 3 bands, 20M, 40M and 75M. You can work each station once per band. Each S/P/C counts once per contest overall...

IF YOU WORK ALL 50 STATES you will be the proud winner and owner of a cool SSB SPRINT T-SHIRT with "Worked All States" emblazoned on it.
Six of those were awarded last year.

However, if you are not so lucky as to get them all, there are 25 more shirts, the same cool T-shirt but without the "Worked All States", as well as other PRIZES that you will be eligible for. Every entry with a score of at least 1,500 points (equivalent of 50 QSOs and 30 multipliers) will be placed in a random drawing for these door prizes.

(See <http://WWW.SSBSPRINT.COM> for Details and Rules).

If you plan on operating either part-time or for the full 4 hours, please join the PLANNED ACTIVITY page on the website. We need to be sure that all states and provinces will be available again for this event.

You can view the planned activity here: <http://ssbsprint.com/planned-activity/>

You can add your own planned activity here: <http://ssbsprint.com/planned-activity/my-planned-activity/>

Hope to see you all on Saturday April 2nd for some good quick contest fun.

Please take a look at the
ssb sprint website at [HTTP://www.ssbsprint.com](http://www.ssbsprint.com) website !

73,
Chris
N6WM and the SSB sprint gang!

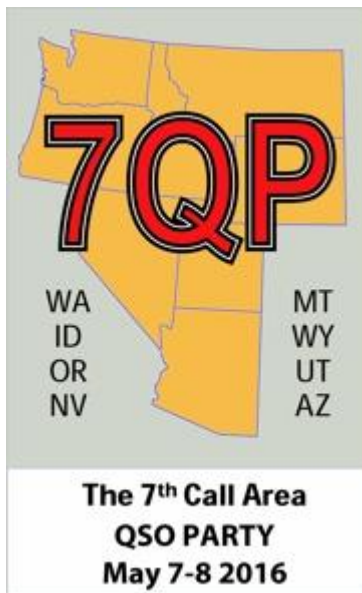
Northern California Contest Club Reflector—Guidelines

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.



7QP will be May 7-8, 2016

The 11th running of 7QP will be May 7-8, 2016. I am proud to have been one of the founders of 7QP as it is now the third largest state/regional QSO party in the Country.

I am also contrite in not having the time over the last few years to effectively be the Nevada State coordinator and solicit everyone to get on and activate all 17 counties.

- It is a fun one-day operating event where you are the DX
- It is an excellent opportunity for emergency communications preparedness
- It is a great way to “see Nevada” with County mobile or portable DX-Peditions

Full rules are at <http://ws7n.net/7QP/new/Page.asp?content=rules>

I will act as NV coordinator so please send me your plans and I will maintain a master list of who is covering which counties. It is really a fun activity for your Club or ARES group.

We will also sponsor a multiop at W7RN – NVSTO

Please freely distribute this information

Tom Taormina, K5RC
Comstock Memorial Station, W7RN
Storey County ARES, KS7AA

www.w7rn.com
[775-847-7929](tel:775-847-7929)

Why do You contest? Stu K6TU

Ham Radio Contesting (a.k.a. RadioSport) is an interesting aspect of Ham Radio. Some hams despise it and object to the use of "their frequencies" by contesters who turn otherwise quiet bands into Ham Radio rush hour. Others see contests as an opportunity to work on awards like "Worked All States" or add countries to their DXCC totals. Finally there are the contesters themselves.

I am a contester. I do my best to be courteous to other users of the ham bands, avoid causing QRM but when I contest, I contest for a reason.

I contest to have fun! This is rule #1 for me - if it isn't fun, don't do it. For me the fun element comes from the satisfaction of doing something I like, doing it well and striving for improvement/proficiency. Contesting lends itself to metrics - number of contacts/hour, number of points or multipliers, number of band changes... Modern contest logging software provides many of these metrics automatically - others require using additional simple tools for analysis. I can fulfill this reason without making an all out effort to participate in a given contest. I get on the air, provide some points to others who are making an all out effort and send in my log. Like the chicken, I made a contribution.

I contest to evaluate changes or improvements. Although propagation conditions vary, I can contest to evaluate changes I make to my station (antennas, power level, reduction in local noise sources etc) as well as changes to my strategy. Strategy may be choice of bands by time, how much time I spend running a frequency versus looking for multipliers, which directions do I chose to look for contacts etc. Much like the first reason, I can often do this without making an all out effort.

I contest to improve. Yes, this is a by-product of reason #1 but it is often THE goal for me. After each contest I think about what I did and how I did it. I try to take the time to write this down so that when I get ready for the next contest (especially the next running of the same contest), I can review what I did and consider the things which I thought at the time went well or were first class mistakes. Some of these mistakes are comical; I blew a very good score on one contest when I forgot that I had reversed the direction of my SteppIR during a run of JA's to answer a slew of South American stations that called me - and then forgot to switch back to the normal direction before taking a rest break. After the break, the bands were SO dead - doh! Beaming in the wrong direction will do that to you! Now I have a big red REVERSED label on my SteppIR control software.

I contest to WIN. With few exceptions, for me this means winning as part of a team. While by no means is my home station a "little pistol", I have a single tower, a dipole and a vertical. Without some stacks, gain antennas on the low bands, I'm competitive but an unlikely winner especially when folks are looking to qualify for the next WRTC. SO2R is on my to-do list together with adding a couple more antennas - that still won't make a WRTC contender.

But as part of a COMMITTED team, I can and do win. Just like the pig providing the bacon, a commitment to be part of a team means making an all out effort with all the skill and operating hours I can muster. Commitment means keeping one's butt in the chair, making the right choice for band changes, running time versus search and pounce, minimizing bio-breaks and distractions as well as grinding through the slow and dreary times of the contest. Maintaining the concentration and operating time requires another element less obvious to the typical ham operator - physical fitness. Young or old, physical fitness is not a given. It requires attention to diet, weight control and physical exercise. While disease and injury play a role as we get older, most of us at any age can do things to improve or maintain our health.

Contesting to win is not for sissies. Keeping your butt in the chair and maintaining concentration for the entire contest takes work - especially if your fellow team members are counting on you for a decent score.

Therein hangs the rub. Considering the reasons for contesting, do all the members of the team take part with the SAME REASON as THEIR dominant reason when they agreed to take part?

In my experience, the larger the team, the less likely that all team members have the same reason in mind. Some contest categories even reinforce (exist because of?) this dynamic. When the goal is to simply play the law of large numbers and get as many people to participate as possible, the typical ham makes a contribution, not a commitment.

Taking part is a fair decision - so long as everyone on the team then realizes that winning is secondary to taking part - and doesn't expect a bunch of pony-club participation ribbons as a result.

Its a good idea when agreeing to participate in a contest as part of a team, to think about YOUR REASONS and whether it supports the expectations of the rest of the team. Mis-set or unstated expectations are the cause of disappointment and discouragement. These in turn lead to less future participation and apathy.

Consider writing down why YOU contest and share it with other team participants - you and they may be surprised but at least expectations will be managed.

Annual Awards & Elections

Come To Claim Your Own Award (or Awards) and/or Enjoy seeing others receive their Awards.

The Awards Meeting Will Be Broadcast Live Via Webex. See the Webinars Page on the Club Web Site for Details.

Time: 11:30am social hour; 12:30pm dinner, 1:00pm program
Location: Tied House Brewery 954 Villa Street, Mountain View, CA

Watch the reflector for details or visit the NCCC website for further information.

**RSVP to Ian W6TCP w6tcpian@gmail.com
on or before Wednesday April 20th**

Originally posted on September 29, 2015 by Michael Wells

This article appears in the Fall 2015 edition of FOCUS, the journal of the First Class Operators' Club (FOC). It is reproduced here kind permission of Michael Wells

The Origins of Club Log

Late in 2014 at the FOC Annual Dinner in Milton Keynes, I was caught completely unawares when the G3FXB trophy was awarded to Club Log. Last month, I was also inducted into the CQ DX Hall Of Fame, again a surprise and a moment of great pride. Prompted by Gabor, I have realized that it is high time I wrote a piece for FOCUS to try to put things into perspective!

My aim here is to give a little bit of history and insight into how Club Log came to be. Here is a quick overview to start us off:

Club Log is a web site – <http://www.clublog.org> – to which DXers may upload their logs. Club Log reads the contents of those logs and from them generates feedback, information and statistical reports (somewhat like a desktop logging tool).

The data in Club Log is also put to work in a number of other ways. For example, Club Log helps identify QSLing gaps, finds DX cluster spots for needed band slots, offers propagation tips, great circle maps, automatic Twitter announcements when you work a new one, and much more besides.

Club Log also builds league tables of how many entities and zones have been worked by all users: it is an aggregator. Much of its power is found here, for example in finding propagation patterns or building most-wanted leagues from its vast troves of empirical data.

Club Log is commonly associated with big expeditions. Through its special expedition service it helps the team leaders and DXers coordinate their activity through graphical depictions of the bands, modes and times of day when QSOs are being made. It is capable of matching logs for the purpose of QSL verification, much like Logbook of the World, but also integrates with PayPal so that QSL cards can be paid for. This cuts 50% of the paper QSLing cycle out for these 'one way' QSLs.

It is difficult to sum up every feature, but to finish setting the scene, Club Log is currently storing 300 million QSOs that are owned by 45,000 users from every corner of the globe. Club Log is free of charge, and free from commercial influences such as advertising or sponsorship. Instead, users can choose to make a donation from time to time. This is an effective, alternative model to charging that keeps Club Log viable.

How did all this start?

Although I was first licensed in 1994 when I was 16 years old, I did not really do much serious amateur radio. I was of course interested in computers and the internet. I never really thought to push on to the full class 'A' license and the rewards of HF back then, and in the intervening time, I was a student at Cambridge studying engineering. After completing that course, I founded a software company (so time was somewhat in short supply!).

Thankfully, in the summer of 2005 or so, with a push from Martin G3ZAY, I got much more involved with the Cambridge University Wireless Society (G6UW), and began to take a keen interest in the HF bands and DXing. By 2007 the bug had really bitten, and I was considering writing some software to help me keep track of the DXCC entities I had worked.

Even though I had good logging tools on my own PC I could see that it could be great fun to establish a league table with some other locals. Rather naïvely I felt sure I could knock this problem on the head in a weekend or two by writing some code, and with a few tips from Dominic M0BLF (of RSGB IOTA fame) I decided to crack on and write Club Log v1.0.

The objective was simple: using the definitions of DXCC entities and the prefixes for those entities, I would read in the contents of an ADIF log file and convert every QSO into a database record. A database is a powerful analytical tool. It would mean I could make league tables and analyze the aggregate data, and maybe begin with some simple reports.

It was actually quite a delight to be able to combine my professional and radio interests into one project. I do consider myself very fortunate in that respect as it quickly became apparent that this little venture was going to need far more work than a weekend or two!

A bit of trivia – why is it called Club Log? Well, I felt it was fundamental that users should declare themselves to be members of clubs. Clubs would make it possible to create league tables that were smaller and more focused, and perhaps reset annually to reward activity. The word Club in the name is about this philosophy of making smaller, more regional user groups. It seems to work well.

The appeal of statistics

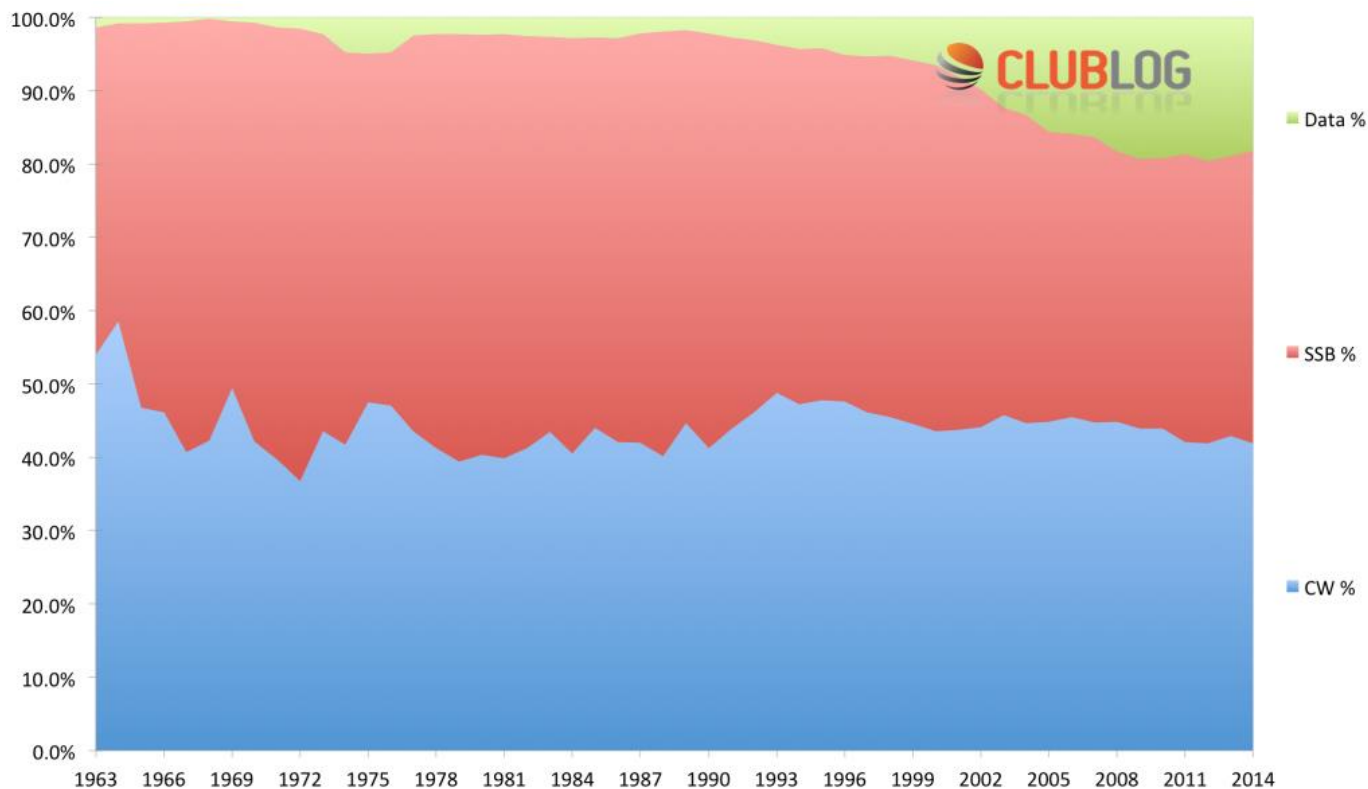
The potential of all the data in Club Log is tremendous. In our hobby, there is a fascination with statistics, mainly I think due to our awards and our tendency to be competitive. We are also interested in substantiating with facts our beliefs about the state of our hobby and its future.

Well, I had perhaps 2 million QSOs to analyze by 2008, and this figure doubled every year after that. Each new QSO sharpens up the database, and from the mass of QSOs piling up even at an early stage, I could see trends were emerging. I could find which bands were busy at which times of day, which DXCCs were most active, which modes were most popular – pretty much any question had an answer hiding in the raw data, and now it was in a database I could quickly get those answers. I was inspired by the possibilities for analysis.

Firstly, I added an empirical most wanted league. It works on the basis that when an entity has not been worked, it is 'wanted'. This means that entities with fewer QSOs will rise up the most wanted league by counting the QSOs and ranking the results (with a little bit of care about the way each user is counted). I remember being thrilled when I first ran this report, and out came an almost perfect most wanted list! It matched my expectations as a DXer so well, yet it was the product of empirical data.

Later, I added the ability to study the activity between two entities, as a graph of time against each band. It is not a propagation chart but looks very much like one due to the smooth curves in the data. This evolved from work Marios 5B4WN was doing with expedition charts at the time, and now in 2015 it also covers filtering by solar flux or comparing to VOACAP predictions. The underlying data is sprawling and intractable on its own, but this tool makes it feel simple and manageable to explore.

I must say, it is great fun bring the data to life with tools or reports. I have gladly collaborated with one or two like-minded DXers, such as Wayne N7NG and Roger G3SXW, to perform interesting analyses from time to time. These reports can reveal the state of our hobby and how it might be changing. For example, I made a graph of the proportion of QSOs are made in CW each year – pleasingly it seems to be SSB that gives way to data modes, while CW remains as popular as ever! See <http://g7vjr.org/2015/03/proportion-of-modes-used-on-the-air-update/> if you are interested.



The last measurements were as follows:

- CW 41.9%
- SSB 40.0%
- Data (other) 18.1%

Building the team

Although I made very little attempt to promote Club Log back in 2008 (knowing it had a few problems with DXCC lookups at the time), it quickly obtained a bit of a following, especially in the UK. There were some aspects of this that I could handle, such as hardware, hosting and databases, but in other areas I was going to need some help. By good fortune, I was able to team up with two very important people:

Marios, 5B4WN who had invented the now-ubiquitous expedition charts, leaderboards and propagation tables. First used by 3B7C and FSDXA, these charts were inspired by the designs of FOC member John, G3WGV, in his StarSuite system. Before Club Log, Marios would help individual expeditions to run the expedition charts code, but it was hit and miss and a lot of effort each time, with sometimes disappointing results if the server buckled under load. I worked with Marios to provide him with a way to make the expedition charts into a product – one that could be used by appropriate users of Club Log on demand, rather than needing special arrangements each time. We were able to make it reliable and fast under stressful conditions, at last. Marios has recently gone on to write the immensely popular Online QSL Request System (OQRS) that you see in Club Log. I must say his contribution to Club Log is extraordinary and it is a joy to collaborate with such an innovative, smart guy.

Alan, 5B4AHJ, who possesses a wealth of knowledge about callsigns, DXCC and IOTA, and has a background in software (having written Shacklog). Alan was keen to improve on the situation with the way Club Log was choosing DXCC values from the callsigns in people's logs, and so back in 2008 or so – somewhat by accident I suspect – he began the long, long task of computerising the historical prefixes and entities from 1945 onwards. Alan has written extensively on how he does it. I will say that it is quite simply a mammoth task, and requires pouring through historical records and piecing together the geopolitics of amateur radio callsigns right through to the present day. Alan continues to manage this and improve upon Club Log's precision every day. Only because of this work can Club Log generate credible information. I simply cannot imagine Club Log without Alan's input.

Many others have helped, too. Gary ZL2IFB got things kicked off with our documentation project, which is hugely helpful to new users, and Jim KE8G also stepped in to give Alan and I some support dealing with Help Desk queries. You can sense, I hope, that it is only with such great volunteers that the real potential of Club Log has flourished.

Taking stock – 2007 to 2015

Club Log is about 8 years old – it really has whizzed by!

Learning new skills, databases and programming languages has been rewarding. As my professional life was turning to commercial and management responsibilities, Club Log gave me back the right to toy with computers and play with ideas that gripped me (but with a real purpose and focus, too). I have found this to be just right, and it is part of my reason for spending so much time on the project.

I must say, too, that cooperating with great people – other programmers, DXers and expedition teams – is a privilege. When a Club Log user provides a scan of a QSL card from the 1950s, it can be the last long-missing piece of a jigsaw puzzle for Alan's research. When an expedition team logs 200,000 QSOs and Club Log calmly handles 2 million log lookups in a few weeks, that is truly gratifying. When we find a new DXCC in someone's log, the shared sense of delight is amazing.

However, the truth is that 40,000 users can create a lot of correspondence, too. If you imagine that each user asks just one question every three years, it's still over thirty emails sent to the Club Log helpdesk each day. We try our best to manage expectations on this front (and largely we are treated with exceptional tolerance and patience if we fall behind!). I think perhaps we are excused by the fact that Club Log is free. Had we charged even \$1 for its use, I suppose our helpdesk would be mired in correspondence.

Perhaps the other consequence of Club Log is that I do not get to do quite as much on the air as I would like; instead, a lot of my hobby time is spent at the keyboard either maintaining existing systems that need performance enhancements as Club Log expands, or working towards future developments. One way or the other, to me this is all amateur radio and I am contented!

Come and have a chat

I hope this gives you the flavor of the origins of Club Log. The actual specifics have been glossed over, but I hope that any FOC member who is curious about Club Log will feel free to contact me directly at any time – you can email me at michael@g7vjr.org.

I would like to thank publicly the many members of FOC who have actively helped and supported Club Log from its earliest days. Without their friendly encouragement and practical support to persevere, Club Log might not have succeeded – and there is still more to do!

161, Michael G7VJR

This entry was posted in Club Log by Michael Wells. Bookmark the permalink.

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Morse Key Service



Do you have a bug, paddle, or hand key that needs adjustment, cleaning, repair, or restoration?

Give me a call. I can handle any make or model in any condition, whether it needs a museum-quality antique restoration, new parts, or just a careful cleaning and adjustment. Complete machine shop, metal plating, polishing, etc. Special deals for NCCC members. Gary NA6O gwi@wb9jps.com (925) 399-2789.



The NCCC meeting took place on Saturday March 12th at Cattlemen's Steakhouse in Livermore. It was attended by Forty One NCCC members. The meeting was also made available by WebEx for those who could not attend the actual meeting live.

The Two featured presenters for the meeting were:- Remote Operation using Flex Radio by Chris N6WM and Sweepstakes by Dean N6DE.

Those in attendance were:-

Shirl AA6K, Stefan AF6SA, Michael DG1CMZ/W6 , Tom K6EU, Jim K6JAT, Dave K6KNS, Dick K6LRN, Mike K6OR, Jim K9YC, Jerry KD6WKY, Chris KG6O, Lee KI6OY, Marcus KI6WDX, Dave KK6DF, Bob KN6N, Tom N3ZZ, Ric N6AJS, Dean N6DE, Rick N6DQ, Ron N6IE, Vicki N6KLS, Mel N6MCM, Rick N6RK, Ken N6RO, Bob N6TV, Chris N6WM, Mike N7MH, Gary NA6O, Tom NW6P, Bob W1RH, Tom, W2SC, Larry W4UAT, Glen W6SR, Ian W6TCP, Ken W6XB, Rich WC6H, Marshall WZ5S, Steve W1SD, Greg NR6Q, John WB6ETY





< Chris KG6O "Webex Master"



Rick N6RK Waling for the food >



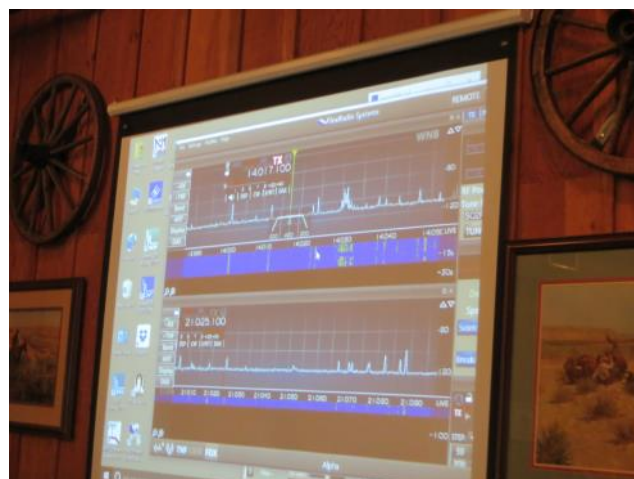
LARK and NCCC Members—John WB6ETY, Lee KI6OY, Dave KK6DF



Flex Radio Presentation



Chris N6WM.







Sweepstakes
Dean N6DE



See you all at the Next meeting !



Point Generator Profile

He made 463 Q's in the 2016 ARRL RTTY Roundup. He made 609 Q's in the 2016 CQ WPX RTTY contest. He made 603 CW Q's in the 2015 California QSO Party and set a new record for Alameda County in the Low Power, Single Operator Assisted category. He made 464 Q's in the 2015 CQ WPX CW contest.

His name is Gary, his call is NA6O, and I think we will all agree that Gary's a Point Generator for the best contest club in the world. I don't see a microphone in the picture, but we won't hold it against him. Points are points, regardless of how you make them!

Gary has done it all from a small lot with minimal antennas and 100 watts. If you didn't read Gary's highly acclaimed article in last month's Jug, please do.

Name/Call Sign:

Gary Johnson, NA6O

Past calls:

WN9JPS, WB9JPS

Location:

Livermore, CA CM97dq

How much property do you have?

About 8000 sq ft inside the fences, most of it occupied by a big house and detached garage.

Describe your antenna system:

Current:

Forever limited by CC&Rs here. Technically, I'm a flagrant violator but nobody has complained. For transmitting on 6-20 m, I use an R6000 on a 12-foot mast, painted primer grey and jammed against a neighbor's tree for low observability. On 40 and 80, I have an N6BT Bravo 84 that barely fits in the yard. I receive (and sometimes transmit) on an invisible fan dipole at 15 feet. I also have a Wellbrook AL1530 receiving loop.

Future:

The future is dismal, unless we move, or congress passes the Parity bill. Even then, it will be a battle. Thank heavens for Ken at N6RO who lets me sit in for contests and help with station maintenance there. Maybe some remote operation...

What's in your shack?

Kenwood TS-590s and a KPA500 to make my signal equivalent to QRP! Palstar tuner, WinKeyer, and a very nice industrial rackmount PC that I built for this purpose, running HRD and N1MM+. I also have a homebrew all-band CW rig that I built in 2006 when I was getting back on the air. I am all CW, plus some RTTY. SSB only when forced. Also looking into JTxx modes. It all sits on a tiny cart in the corner of my shop/garage.

What are your previous QTH's?

Crystal Lake, IL, prior to 1981. That's where I got my novice when I was in 8th grade. Moved up the ladder to Extra plus a First Phone by the middle of high school. Spent most of my time on the traffic nets (ILN, 9RN, CAN). After moving to Livermore in 1981, I was basically QRT until 2006. Then it was like Rumpelstiltskin for me!

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

Just retired after 35 years at LLNL. I went to the University of Illinois and have a degree in EE/bioengineering. Instrumentation and control systems are my thing. I'm really good at high-performance analog including audio. Need to measure picoamp pulses floating at 30 kV? I'm your guy. Also got good at LabVIEW (graphical programming) and wrote the first book on that. LLNL is the most interesting place in the world. I worked on everything from microfluidics for biosensing to free-space optical communications to petawatt lasers. Also got to blow some things up and hang out with UAVs and various military systems in exotic desert locations. I have nine patents.

Married? Kids? Grandkids?

I met my wife, Katharine, while writing my book; she was my illustrator and had a career in scientific illustration. No kids, but we've always have had Afghan hounds.

How many DXCC entities have you worked?

Right at 250 now, 245 confirmed, all since October 2011. And with my pea-shooter station, I assure you that half of those required a LOT of work.

What's your favorite contest?

CQP really rocks, and I also have a great time in the big ARRL/CQ contests. All CW of course, but lately RTTY, and that works well for me too. Thanks to W0YK for all the spurring-on and how-to info. Incredibly, I won ARRL-DX-CW (EB SOU) three years in a row.

Any tips for contesters?

Most of what I know was summarized last month in my article about contesting from a pea-shooter station. It's your skill, not your station that matters in the long run. Use all the procedures and tools that the big guns use, as best you can apply them.

What would you like to see changed in NCCC?

It's hard to improve on perfection! For those of us who joined more recently, perhaps there are some older presentations that might be repeated.

Any other hobbies besides ham radio?

I'm a craftsman: Fine woodworking; metalworking; electronics of all kinds. That's what keeps me busy in retirement. Used to be into high-end audio until my hearing went bad from a brain tumor. Also hiking and biking to cancel out those long hours of BIC.

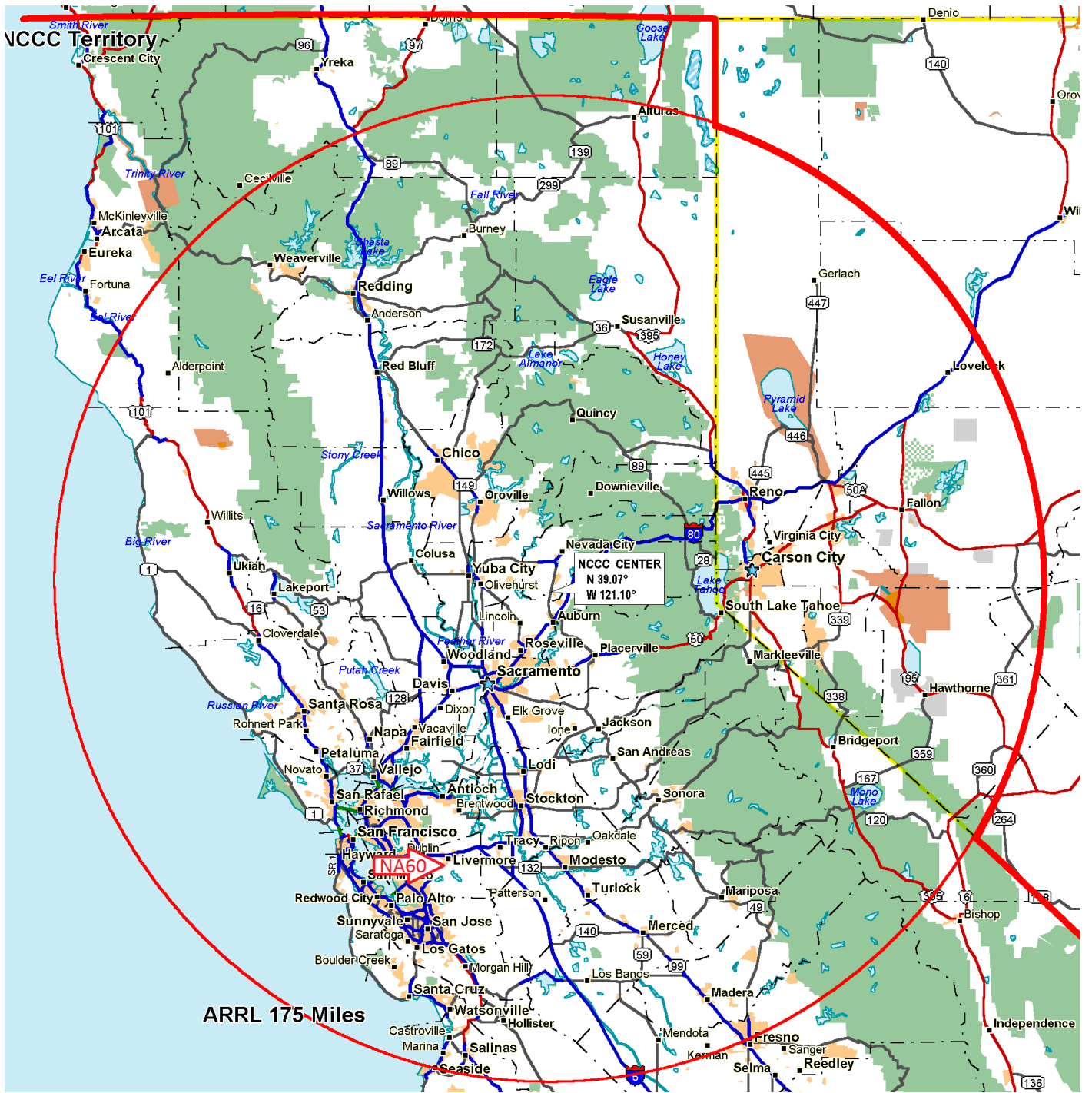




Gromit, Gary and Kath



Cold night at NA60



ARRL 175-Miles



GOLDRUSH—Coins



Jay, KE6GLA and Nancy, KG6PNP show off their 2015 California QSO Party Certificate and Gold Rush Challenge Coins.

DXCC Deletion of Kingman Reef

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The ARRL Awards Committee has voted to delete Kingman Reef (KH5K) from the DXCC List, effective 29 March, 2016. Kingman Reef will be added to the Deleted Entities List on 29 March, 2016. The total number of entities on the List will drop from **340 to 339**.

The deletion process is described in DXCC Rules Section II DXCC List Criteria, Part 5(a) Deletion Criteria: *“An entity may be deleted from the List if it no longer satisfies the criteria under which it was added. However, if the entity continues to meet one or more currently existing rules, it will remain on the List.”*

With respect to the previous paragraph’s text, Kingman Reef’s original addition by virtue of separate administration has changed (separate administration by the U.S. Navy has been removed), and the reef does not meet any current criteria to remain on the list. The U.S. Fish and Wildlife Service administers Kingman Reef and Palmyra Island. The reef is too close to Palmyra Island to count as a separate entity. **The reef is now considered part of the Palmyra/Jarvis DXCC entity.**

DXCC members who have affirmed credit with Kingman Reef will see their current entity totals drop by one on their DXCC awards — including on the bands and modes where Kingman Reef credit is given. They will also see their DXCC Challenge totals drop commensurately. **Honor Roll status will now be attainable after confirming 330 entities on the DXCC List.**

TUBE OF THE MONTH

Visit the museum at N6JV.com

Norm N6JV

AUDION

The First Triode

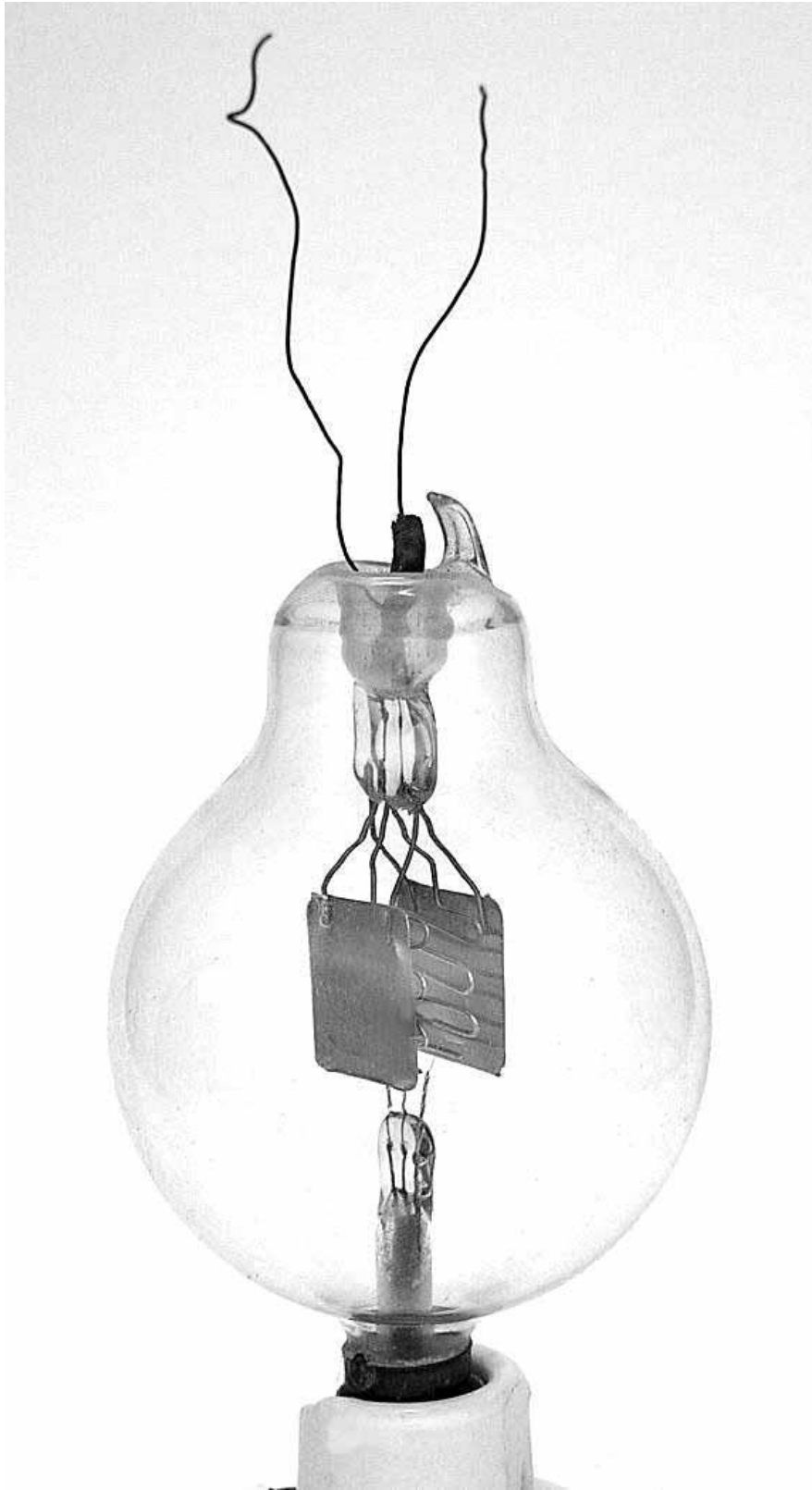
In 1880, Thomas Edison performed an experiment with one of his new light bulbs. He added an extra wire to test the properties of the deposits that were darkening his bulbs. In the deposit there appeared to be a shadow of the filament wire. He was able to detect a current in the wire. At an electrical exposition, Edison presented this phenomena without suggesting any possible uses. An attendee from England was very interested in the bulbs and conned Edison out of some samples. In the next few years, John Fleming became aware of these bulbs and the experiment and tried using AC voltage. The added wire had a DC voltage and the vacuum rectifier was born. When Marconi needed better detectors for wireless gear, Fleming tried the vacuum rectifier. The Fleming valve was an improvement and it was patented for use as a detector.

Back in America, Lee de Forest was trying to make a living in the new wireless industry. He tried many circuits including Fleming's valve. His company eventually was going broke and his creditors were about to shut him down. One of the last experiments he wanted to try was to take a bulb and add a small square plate separated by a zigzag wire between the plate and the filament. De Forest picked up his new bulbs from the glass blower after a meeting with his creditors. They had liquidated his company, fired him as Vice President and gave him \$500 and his patents as severance.

A few weeks later, he had a high school student test the new bulbs. The tubes were a big success and a new patent was applied for. This was January 1907. Over the next few years, de Forest tried different versions of his AUDION. The tube had a low vacuum and was gassy but it did a fair job as a detector. He marketed the tubes to hams while he tried for military and commercial contracts. Some audions were better than others and could be bought at a premium price. Since they had no idea what affected performance, they couldn't predict what would be a better tube. The plates were cut with scissors that were soldered to a wire. The grid was a copper wire wrapped around some nails on a board. It worked and was the first triode. De Forest could never get it to amplify where the real money was.

This example was made about 1909 and had two plates, grids and filaments. The filament was only good for 100 hours at best so an extra filament was added with its own wire. When one filament was burned out, the wire could be wrapped around the screw base and you were back in business.

Norm N6JV



Audion



California QSO Party

GOLDRUSH—TEAM

N6U - Santa Clara



For CQP 2015, I volunteered to be one of the 24 “Gold Rush” stations using the callsign N6U, operating from my home in San Jose. It was indeed a “rush” experience.

Operating in the new Single Operator – Assisted category was different. Using some of the common online tools to monitor band activity kept me engaged for 20 hours.

The station: Elecraft K-Line (K3-P3-KPA500) + 3-element SteppIR (w/40-30 dipole) at 40 ft. ACOM 1000 amp used as backup. G5RV for 80M. Inverted-U for 160M. N1MM+ Logger.

One challenge in CQP is to manage the ratio of CW: SSB QSOs during the contest. I’ve found over time that it’s almost impossible to grab all 58 Mults without using both modes. I usually shoot for 70% CW and 30% SSB each year. As a “Gold Rush” station it was also important to be bi-modal, just to be sure that mono-mode operators (those who operate 100% CW or 100% SSB) had an opportunity to put the “U” of “Gold Rush” into their logs.

I had a great time operating as a 1x1 station, alongside the other two “U”

stations (K6U = K6TU and W6U = N6VV's team). Luckily there were no visits from Uncle Murphy during the weekend.

In the end, I logged 1,179 QSOs across all bands for a final score which was strong enough to give me a place on the Top-20 Wine Winners list for CA. OK...so it was 20th place – but the wine will still taste the same. :>)

CQP 2015 Wine Winners			
CALIFORNIA			
	Callsign	QTH	Score
1	W6YI (N6MJ op)	SDIE	427,692
2	W6R (N6ED op)	SDIE	354,090
3	W6D (K6XX op)	SCRU	341,910
4	W6G (WC6H op)	CALA	308,502
5	NO6T (N5ZO op)	SDIE	297,768
6	N6R (AE6Y op)	AMAD	296,913
7	N6L (K6LA op)	LANG	295,104
8	W6OAT	SMAT	275,082
9	N6TV	SCLA	273,006
10	W6AQ (N6AN op)	LANG	272,916
11	N6IE	SONO	271,382
12	W6H (W6SX op)	MONO	244,986
13	AA6PW	ORAN	231,021
14	K6H (W6KC op)	LANG	228,088
15	KI6RRN	SDIE	225,036
16	K6MR	SHAS	220,932
17	N6N (K7GK op)	CCOS	217,848
18	N6JV	SACR	202,362
19	WN6K	SDIE	190,323
20	N6U (K6MM op)	SCLA	181,830

After the contest, my N6U log was uploaded to LoTW. But those seeking an actual direct or bureau QSL card were not disappointed. A customized QSL card, printed by UX5UO, was made available for all 24 1x1 Gold Rush stations to use, as shown.



The 1x1 "GOLD RUSH" Callsigns, CA USA

K6	County	N6	County	W6	County
<input type="radio"/> K6G	SBER	<input type="radio"/> N6G	TUOL	<input type="radio"/> W6G	CALA
<input type="radio"/> K6O	SLUI	<input type="radio"/> N6O	CCOS	<input type="radio"/> W6O	ALPI
<input type="radio"/> K6L	ALAM	<input type="radio"/> N6L	LANG	<input type="radio"/> W6L	ALPI
<input type="radio"/> K6D	LANG	<input type="radio"/> N6D	SDIE	<input type="radio"/> W6D	SCRU
<input type="radio"/> K6R	SDIE	<input type="radio"/> N6R	AMAD	<input type="radio"/> W6R	SDIE
<input type="radio"/> K6U	SMAT	<input type="radio"/> N6U	SCLA	<input type="radio"/> W6U	COLU
<input type="radio"/> K6S	SONO	<input type="radio"/> N6S	SONO	<input type="radio"/> W6S	CALA
<input type="radio"/> K6H	LANG	<input type="radio"/> N6H	ELDO	<input type="radio"/> W6H	MONO

To Radio	DATE			UTC	MHz	2-Way	RST
	DAY	MONTH	YEAR				

Qualifying rules for the Gold Rush coin are shown here: **73,** <http://www.cqp.org/goldrush.html> Trnx for QSO / QSL UXSUO prin

CQP is certainly one of my favorite contests. Those of us in California “are the DX” which creates nice steady pileups for us to work. In addition, there are plenty of operating options to consider each year. In my case, for the last 5 years:

- 2011 – operated from San Francisco County (with K6TD, N6DE)
- 2012 – operated from Merced County (with N6DE, ND2T, W6OAT)
- 2013 – operated at W6YX as M/M (with 10 other operators)
- 2014 - split time between CQP and W1AW/6
- 2015 operated as N6U, one of the 24 Gold Rush stations.

I haven't finalized plans for 2016 yet, but one thing's for certain: I'll be having more **CQP FUN** again this year!

Call: N6U
Operator(s): K6MM
Station: K6MM

Class: SO(A)Fixed HP
QTH: CA
Operating Time (hrs): 20

Summary: Compare Scores

Band	CW Qs	Ph Qs
160:	9	2
80:	41	1
40:	215	36
20:	363	275
15:	164	53
10:	16	4
6:		
2:		

Total: 808 371 Mults 58 Total Score 183,628



N6U - Santa Clara

Contesting from the West Coast – Musings on West Coast relevant contests by N6WM

(Opinions are specifically those of the author and do not
represent any official statement of the NCCC)

Greetings fellow testers.

April is here and with a good chunk of the Major contesting season behind us, and with Spring upon us many of us will turn our attention to working on our towers and antennas, either ourselves, with teams of Kbers or with the professional help from folks like Kurt K7NV and team. I think one of the biggest benefits of NCCC membership is our collective brain trust and helpers. When a call goes out for antenna help or station maintenance, there is almost always some group of people who will selflessly show up for technical, climbing or ground crew duties. I am always grateful that when we need it, these folks are there. With all these contesting objectives going on its easy to loose sight of the fact that greatest part of the NCCC is you and the clubs overall membership. Regardless of the contesting goals of the moment, our camaraderie and our ability to work with each other in a supportive way to achieve our goals makes each and every one of us a contesting winner and the true strength and membership benefit of the NCCC shows!

Here are some relevant contests going on in April. Our contest fun for the year is not over yet!

15 meter SSTV dash contest 0000Z April 2 to 2359, April 3rd 2016

I am of course kidding by listing this.. unfortunately, it is for real and they are not kidding. GL in the contest.

EA RTTY Contest 1600Z, Apr 2 to 1600Z, Apr 3

We actually enjoy good propagation the this area of Europe/North AF (Portugal, Spain, Azores Madeira) and this one could be fun. With worldwide multipliers and a contest happening in our Winning NCCC mode of RTTY, this may be worth your time. Vamos NCCC!

North American Sprint, SSB 0000Z-0400Z, Apr 3

Recovering from a death blow of canceled sponsorship can be a difficult challenge, and since we are testers a challenge is just what we needed. “no” is not an answer we would accept, and for good reason! In Feb of 2015 the maiden voyage of the new, and rebooted NA Sprint SSB enjoyed the highest participation level of any sprint in any mode EVER. With drawings for prizes like T-shirts and ham radio supply vouchers. Icom sponsored plaques and the coveted Worked ALL States in 4 hours t-shirt as a goal, I hope many Kbers find the time to get on the air for the true fastest 4 hours of contesting fun! Other sprints should look to this model to boost their own participation!

JIDX CW Contest 0700Z, Apr 9 to 1300Z, Apr 10

I have said it before and I will say it again. This is a great contest and one that can be WON from W6. With All band and single band categories and a favorable QTH to do well with Japanese contests, JIDX should be on the radar scope for California Contest veterans and newer operators, big guns and little pistols alike. I have multiple single band win lumber on the wall from this.. you should too. Mark your calendars and enjoy being the “West Coast Wall”

Worked All Provinces of China DX Contest 0600Z, Apr 16 to 0559Z, Apr 17

Has anyone worked this one? I am looking over the rules and it may be a viable contest to look into.. due to its location and size EU may be favored but there is a possibility this could work out well for Northern CA contesters. Feedback requested, if you operate this and it looks well participated and you do well let me know and I will report results. May be worth some time investigating.

Don't forget that April is a big state QSO party month.

Pick one or 2 and win some wallpaper.....

Mississippi QSO Party 1400Z, Apr 2 to 0200Z, Apr 3rd

Missouri QSO Party 1400Z, Apr 2nd to 0400Z, Apr 3rd and 1400Z-2000Z, Apr 3rd

New Mexico QSO Party 1400Z, Apr 9th to 0200Z, Apr 10th

Georgia QSO Party 1800Z, Apr 9th to 0359Z, Apr 10th and 1400Z-2359Z, Apr 10th

Nebraska QSO Party 1400Z, Apr 16 to 0200Z, Apr 17th and 1400Z-2300Z, Apr 17th

Michigan QSO Party 1600Z, Apr 16th to 0400Z, Apr 17th

Ontario QSO Party 1800Z, Apr 16th to 0500Z, Apr 17th and 1200Z-1800Z, Apr 17th

North Dakota QSO Party 1800Z, Apr 16th to 1800Z, Apr 17th

Florida QSO Party* (big one.. don't forget!) 1600Z, Apr 30 to 0159Z, May 1st and 1200Z-2159Z, May 1st

There you go. There are LOTS more contests out there that may strike you fancy.. Do your due diligence and check the WA7BNM contest calendar at <http://www.hornucopia.com/contestcal/contestcal.html> and find something fun to do on the air!

Until next month, 73
....and of course, seeya next time

Chris
N6WM



Contest Calendar— April page 1

NCCC RTTY Sprint	0145Z-0215Z, Apr 1
NCCC Sprint	0230Z-0300Z, Apr 1
15-Meter SSTV Dash Contest	0000Z, Apr 2 to 2359Z, Apr 3
LZ Open 40m Sprint Contest	0400Z-0800Z, Apr 2
Mississippi QSO Party	1400Z, Apr 2 to 0200Z, Apr 3
Missouri QSO Party	1400Z, Apr 2 to 0400Z, Apr 3 and 1400Z-2000Z, Apr 3
SP DX Contest	1500Z, Apr 2 to 1500Z, Apr 3
EA RTTY Contest	1600Z, Apr 2 to 1600Z, Apr 3
North American SSB Sprint Contest	0000Z-0400Z, Apr 3
UBA Spring Contest, 6m	0600Z-1000Z, Apr 3
RSGB RoLo SSB	1900Z-2030Z, Apr 3
RSGB 80m Club Championship, CW	1900Z-2030Z, Apr 4
ARS Spartan Sprint	0100Z-0300Z, Apr 5
Phone Fray	0230Z-0300Z, Apr 6
CWops Mini-CWT Test	1300Z-1400Z, Apr 6 and 1900Z-2000Z, Apr 6 and 0300Z-0400Z, Apr 7
UKEICC 80m Contest	2000Z-2100Z, Apr 6
SARL 80m QSO Party	1700Z-2000Z, Apr 7
NRAU 10m Activity Contest	1800Z-1900Z, Apr 7 (CW) and 1900Z-2000Z, Apr 7 (SSB) and 2000Z-2100Z, Apr 7 (FM) and 2100Z-2200Z, Apr 7 (Dig)
NCCC RTTY Sprint	0145Z-0215Z, Apr 8
NCCC Sprint	0230Z-0300Z, Apr 8
JIDX CW Contest	0700Z, Apr 9 to 1300Z, Apr 10
PODXS 070 Club PSK 31 Flavors Contest	1000Z, Apr 9 to 0400Z, Apr 10
QRP ARCI Spring QSO Party	1200Z, Apr 9 to 2359Z, Apr 10
SKCC Weekend Sprintathon	1200Z, Apr 9 to 2400Z, Apr 10



Contest Calendar— April page 2

OK/OM DX Contest, SSB	1200Z, Apr 9 to 1200Z, Apr 10
New Mexico QSO Party	1400Z, Apr 9 to 0200Z, Apr 10
Georgia QSO Party	1800Z, Apr 9 to 0359Z, Apr 10 and 1400Z-2359Z, Apr 10
Yuri Gagarin International DX Contest	2100Z, Apr 9 to 2100Z, Apr 10
International Vintage Contest HF	1200Z-1800Z, Apr 10
Hungarian Straight Key Contest	1500Z-1700Z, Apr 10
144 MHz Spring Sprint	1900 local - 2300 local, Apr 11
NAQCC CW Sprint	0030Z-0230Z, Apr 13
Phone Fray	0230Z-0300Z, Apr 13
CWops Mini-CWT Test	1300Z-1400Z, Apr 13 and 1900Z-2000Z, Apr 13 and 0300Z-0400Z, Apr 14
RSGB 80m Club Championship, SSB	1900Z-2030Z, Apr 13
NCCC RTTY Sprint	0145Z-0215Z, Apr 15
NCCC Sprint	0230Z-0300Z, Apr 15
Holyland DX Contest	2100Z, Apr 15 to 2100Z, Apr 16
TARA Skirmish Digital Prefix Contest	0000Z-2359Z, Apr 16
ES Open HF Championship	0500Z-0559Z, Apr 16 and 0600Z-0659Z, Apr 16 and 0700Z-0759Z, Apr 16 and 0800Z-0859Z, Apr 16
Worked All Provinces of China DX Contest	0600Z, Apr 16 to 0559Z, Apr 17
CQ Manchester Mineira DX Contest	1200Z, Apr 16 to 2359Z, Apr 17
Nebraska QSO Party	1400Z, Apr 16 to 0200Z, Apr 17 and 1400Z-2300Z, Apr 17
Michigan QSO Party	1600Z, Apr 16 to 0400Z, Apr 17
EA-QRP CW Contest	1700Z-2000Z, Apr 16 (20-10m) and 2000Z-2300Z, Apr 16 (80m) and 0700Z-1100Z, Apr 17 (40m) and 1100Z-1300Z, Apr 17 (20-10m)



Contest Calendar— April page 3

Ontario QSO Party	1800Z, Apr 16 to 0500Z, Apr 17 and 1200Z-1800Z, Apr 17
North Dakota QSO Party	1800Z, Apr 16 to 1800Z, Apr 17
Feld Hell Sprint	1700Z-1859Z, Apr 16
YU DX Contest	2100Z, Apr 16 to 0500Z, Apr 17 and 0900Z-1700Z, Apr 17
WAB 3.5/7/14 MHz Data Modes	1200Z-1400Z, Apr 17 and 1800Z-2000Z, Apr 17
ARRL Rookie Roundup, SSB	1800Z-2359Z, Apr 17
Run for the Bacon QRP Contest	0100Z-0300Z, Apr 18
222 MHz Spring Sprint	1900 local - 2300 local, Apr 19
Phone Fray	0230Z-0300Z, Apr 20
CWops Mini-CWT Test	1300Z-1400Z, Apr 20 and 1900Z-2000Z, Apr 20 and 0300Z-0400Z, Apr 21
RSGB 80m Club Championship, Data	1900Z-2030Z, Apr 21
NCCC RTTY Sprint	0145Z-0215Z, Apr 22
NCCC Sprint	0230Z-0300Z, Apr 22
10-10 Int. Spring Contest, Digital	0001Z, Apr 23 to 2359Z, Apr 24
SP DX RTTY Contest	1200Z, Apr 23 to 1200Z, Apr 24
Helvetia Contest	1300Z, Apr 23 to 1259Z, Apr 24
BARTG Sprint 75	1700Z-2100Z, Apr 24
SKCC Sprint	0000Z-0200Z, Apr 27
Phone Fray	0230Z-0300Z, Apr 27
CWops Mini-CWT Test	1300Z-1400Z, Apr 27 and 1900Z-2000Z, Apr 27 and 0300Z-0400Z, Apr 28
432 MHz Spring Sprint	1900 local - 2300 local, Apr 27
UKEICC 80m Contest	2000Z-2100Z, Apr 27
NCCC RTTY Sprint	0145Z-0215Z, Apr 29
NCCC Sprint	0230Z-0300Z, Apr 29
SBMS 2.3 GHz and Up Contest and Club Challenge	0600 local, Apr 30 to 2359 local, May 1
Russian WW MultiMode Contest	1200Z, Apr 30 to 1159Z, May 1
Florida QSO Party	1600Z, Apr 30 to 0159Z, May 1 and 1200Z-2159Z, May 1

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IC-7600 | All Mode Transceiver

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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 RTTY Functions



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



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

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 function



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



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

YAESU
The radio



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

- 160 M-440MHz - SSB/CW/FM/C4FM Digital/AM/RTTY/PSK • 100 W (2M/440: 50 Watts) • 3.5" TFT full-color touch panel operation • High speed spectrum scope • Roofing filters: 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



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