



Publication of the
Northern California
Contest Club



Issue 541

June 2017



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NCCC JULY Meeting

Tuesday 11th July

6pm Social , 6:30 pm Dinner 7pm Program

Location

Sneha 1214 Apollo Way, Ste 404B, Sunnyvale, CA 94085

Program

Chris N6WM Contesting Plans for 2017/2018

See you there !!!

President's Report

Hello KB'ers,

Let's jump right into this. I want to say a few words about NAQP and the NAQP Challenge.

I'm sure you all know that the NAQP Challenge was the brain child of our own Dean, N6DE.

The Challenge is a three-club contest between NCCC, SMC, and PVRC. In my opinion, it's a fair contest between SMC and NCCC, because the two clubs are of similar membership sizes.

PVRC, however, is a monster club with a membership total more than twice SMC and NCCC combined and, as a result, PVRC has been running away with the wins.

Nevertheless, despite the un-level playing field it is still possible for NCCC to win the Challenge and, indeed, we have in the past.

The question, however, is do we want to now?

Let's look at the current standings, which are maintained by the official scorekeeper, Tim Gennett, K9WX, from SMC:

Continued on page 3



Northern California Contest Club

Excellence In Amateur Radio Contesting

Officers:

President	Bob Hess	W1RH	w1rh@yahoo.com
Vice President /Contest Chair	Chris Tate	N6WM	ctate@ewnetinc.com
Treasurer	Dick Wilson	K6LRN	treasurer.nccc@gmail.com
Secretary	Ian Parker	W6TCP	secretary.nccc@gmail.com
Past President	<open>		
Director	Rusty Epps	W6OAT	w6oat@sbcglobal.net
Director:	Rich Cutler	WC6H	wc6h@yahoo.com
Director:	Ron Castro	N6IE	ronc@sonic.net

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K6ZM QSL Manager	George Daughters	K6GT	k6gt@arrl.net
K6CQP,N6CQP,W6CQP QSL Mgr	Ed Muns	W0YK	w0yk@arrl.net
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Webinars	<open>		
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Northern California Contest Club

Excellence In Amateur Radio Contesting



NCCCCKB



NCCC

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

NCCC Net

Thursday 8 PM
Freq: 3.610 +/-

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.

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).

2017 Current Standings

Event	NCCC				PVRC				SMC			
	Logs	Mults	Score	Points	Logs	Mults	Score	Points	Logs	Mults	Score	Points
January CW	3,382,394	85	287,503,490	65	5,297,427	119	630,393,789	100	4,593,611	111	509,890,821	75
January SSB	1,458,673	69	100,648,437	65	1,890,597	112	211,746,892	100	1,864,654	106	197,653,324	75
February RTTY	1,268,901	54	68,520,654	75	910,430	57	51,894,516	65	1,231,760	67	82,527,933	100
July RTTY												
August CW												
August SSB												
Total	6,109,968	208	456,672,581	205	8,098,454	288	894,035,197	265	7,690,025	284	790,072,078	250

A recent change, as a way to level the playing field a bit, was to assign points to the first, second and third place clubs for each event, rather than relying on the total score. The first place club gets 100 points. The second place club gets 75 points. The third place club gets 65 points.

If you look at the winter NAQP CW and Phone contests, NCCC, because we had the third lowest score in each event (a nice way to say that we were in last place), made a total of 65 points for each event. PVRC came in first for each event and SMC came in second for each event.

RTTY was a bit different. If you look at the total score, based on logs, we were in first place, with a total of 1,268,901 points.

Yay NCCC! Right?

Wrong.

Despite our usual terrific RTTY operators putting in a superb effort, we came in second place because we didn't have the mults, and that's just sad.

What's a mult? It's the number of operators participating in the contest. You've all heard me beg and beg for participation points, and many of you do participate. K6XX, for instance, can always be counted on to make at least one contact and turn in his score. THAT's a mult and K6XX is a KB'er! With our high score of 1,268,901 beating SMC's score of 1,231,760, we still came in second because we had only 54 participants and SMC had 67 participants. With a club of around 250 members, we really could do better....ya think?

NAQP is one of my favorite contests. I can do the full ten hours and still have a decent weekend with the family. We have three more to go. We can catch up, if we want to. NAQP RTTY is this coming Saturday. How about a few of you - let's say 80 of you - earn the title of KB'er and do a participation point for us?

One contact logged and submitted. That's all it takes. In a club with about 250 members, we should be able to do much better than the 54 logs we had submitted in the February RTTY.

'Nuf of that...

By now, most of you have heard that the ham who was the architect of our new 501(c)(3) non-profit status, Norm, WB6RVR, passed away suddenly a couple of weeks ago. This one hit me hard since I have known Norm since junior high school. Norm was the Sacramento Valley Section OO Coordinator. Although not a serious contender, Norm and a group of guys have been doing the ARRL 160 meter contest as a M/S for years and years and have always placed well. Norm was also always active in a competitive Field Day effort. Most recently, Norm was one of the major proponents of the California Distracted Driving bill re-write. Below, is a picture that N6TV took of Norm when he was speaking on the subject at the last Visalia International DX Convention.



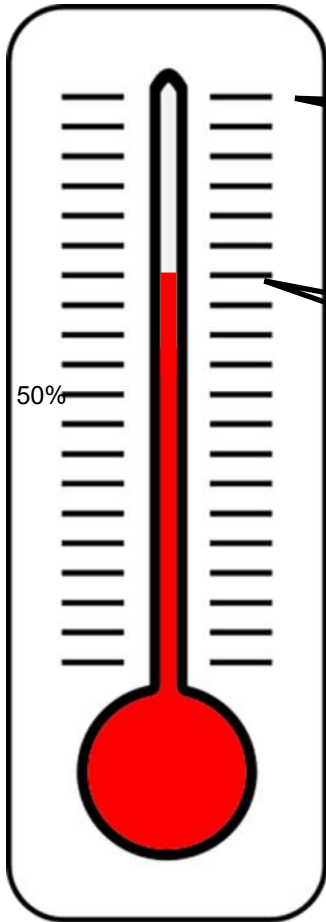
Norm had retired from Union Pacific and has volunteered for many years as the California State Railroad Museum's running stock manager. Those who have been at the very popular Polar Express event might have seen Norm, who was there year after year, taking charge of the train itself.

73 OM.

It looks like our now annual summer BBQ is coming together and N6JV is going to host it. You've all seen his tube articles in the Jug. The BBQ will be your chance to see Norm's actual museum, which is one of the most complete transmitting tube museums anywhere.

Hope to see many of you KB'ers at Norm's. Details in next months JUG!

2017/2018 Membership Dues



Member count 2016/2017
~197* See below
Goal for 2017/2018 is 197!

Current Renewals Stand at:
141 or 72%

Current Membership Renewal stands at **72%** of last year.

Please renew your dues promptly!

Look for the renewal email or go to the NCCC website and under the “membership page” scroll to the foot of the page and Sign in using the button.

Prior to July 1st 2017 our Membership stood at:		Current # as of July 7th 2017:	
Clubs	63	65	
Life Members	9	12	
Paid Through 2017	185	55	
Paid Through 2018	11	135	
Paid Through 2019	1	6	
Non—Paying Members	44	44	
Total	313	Total	317

2017/2018 Membership—1

Thank you to the following members for renewing your 2017~2018 Dues !

Call	Name		Paid Thru June
ACOMN	Shelley D.	Parker	2018
AD6I	Robert	Klahn	2018
AE6Y	Andy	Faber	2018
AF6RT	Scott D.	Esters	2018
AF6SA	Stefan	Nicov	2018
AG6FU	Howard P.	Hoyt	2018
AI6JZ	William	Fenech	2018
AJ6T	Walter E.	Miller	2018
AJ6V	Ed	Radlo	2018
DG1CMZ	Michael	Zuerch	2018
K2RD	Ira	Stoler	2018
K3FIV	Jack	Haverty	2018
K5RC	Tom	Taormina	2018
K6ANP	Len	Geraldi	2018
K6CTA	Edward J.	Schuller	2018
K6EL	Elliott M.	Pisor	2018
K6ELE	Ed	Essick	2018
K6ESL	John	McConnell	2018
K6EU	Thomas	Carney	2018
K6GHA	Don	Taylor	2018
K6GT	George	Daughters	2018
K6IC	Vic	Bull	2018
K6IP	Armand	Sun	2018
K6JJ	John	Gersbacher	2018
K6JOX	David	Wright	2018
K6KNS	Dave	Sanders	2018
K6KO	Kay	Anderson	2018
K6KR	Dick	Dievendorff	2018
K6KS	Steve	Mosconi	2018
K6LRN	Dick	Wilson	2018
K6ME	Terry	Cobb	2018
K6MI	John	Morrice	2018
K6MLF	Michael L.	Fischer	2018
K6MM	John	Miller	2018
K6MR	Kenneth A.	Beals	2018
K6NV	Bob	Moore	2018
K6OR	Michael	Malone	2018
K6RB	Rob	Brownstein	2018
K6RIM	Al	Burnham	2018

Call	Name		Paid Thru June
K6RM	Barry	Pfeil	2018
K6SCA	Steve	Allred	2018
K6SRZ	Alan M.	Eshleman	2018
K6TA	Ken	Anderson	2018
K6TD	Kevin J.	Rowett	2018
K6TKD	Carolyn R.	Wilson	2018
K6WV	Jon W.	Kelley	2018
K6WX	Kristen A.	McIntyre	2018
K6XN	Theodore S.	Park	2018
K6XV	Robert D.	Frizzell	2018
K6XX	Bob	Wolbert	2018
K6YL	Joanna B.	Dilley	2018
K7GK	Denis	Pochuev	2018
K7VC	Charles R.	Flanagan	2018
K7XC	Timothy C.	Marek	2018
KA6BIM	David B.	Tucker	2018
KB0A	Bryan	Steinberg	2018
KD6WKY	Jerome P.	Olive	2018
KE8FT	Giuseppe	Molinaro	2018
KF6NCX	Larry	Mitchell	2018
KH6GJV	William J.	Hillendahl	2018
KI6OY	Lee	Zalaznik	2018
KI6P	Sakae	Muto	2018
KK6DF	Dave	Fannin	2018
KM6G	Jan	Jewell	2018
KM6I	Gordon S.	Good	2018
KO6LU	Robert C.	Frostholm	2018
KR6N	Bob	Leclerc	2018
KX7M	Denny	Sahovic	2018
KZ2V	Nick	Ulman	2018
NOKQ	William	Spickler	2018
NONKJ	James	Hughes	2018
N2NS	Bob	Hervatine	2018
N3RC	Roger M.	Cooper	2018
N3ZZ	Thomas	Hutton	2018
N6AJS	Ric	Hulett	2018
N6CCL	Lawrence	Lemas	2018
N6DQ	Richard B.	Huisman	2018
N6DZR	Jeff	Meyers	2018

2017/2018 Membership—2

Call	Name		Paid Thru June
N6EE	Ron	Lodewyck	2018
N6ENO	Joseph	Eno	2018
N6IE	Ronald E.	Castro	2018
N6JS	James L.	Singer	2018
N6JV	Norm	Wilson	2018
N6KLS	Vicki	Zumwalt	2018
N6NU	Andreas	Junge	2018
N6NUL	Byron	Servies	2018
N6NZ	David B.	Curtis	2018
N6PF	Elliott A.	Medrich	2018
N6RK	Richard K.	Karlquist	2018
N6RNO	Richard A.	Eversole	2018
N6SJ	Stephen F.	Jones	2018
N6TQS	Doug	Faunt	2018
N6VV	Lew	Jenkins	2018
N6WM	Christopher	Tate	2018
N6XG	Walt	Wilson	2018
N6XI	Richard M.	Tavan	2018
N6ZFO	William F.	Haddon	2018
N7TW	Terry	Wilkin	2018
NA6O	Gary	Johnson	2018
ND2T	Tom	Berson	2018
NF1R	Clayton M	Nall	2018
NM6E	Javier	Campos	2018
NN6EE	Jim	Davis	2018
NR6Q	Greg	Glenn	2018
NS6T	Tom	Epperly	2018
NW6P	Tom	McShane	2018
W2SC	Tom	Georgens	2018
W6AER	Lucas L	Ford	2018
W6CT	Scott	Lieberman	2018
W6CYX	Robert L	Warmke	2018
W6CZ	Don	Melcher	2018
W6DPD	Chuck	McConnell	2018
W6DR	David	Ritchie	2018
W6EU	James C	Duffy	2018
W6FA	Bill	Bridges	2018
W6FDU	Benjamin P	Deovlet II	2018
W6GJB	Glen	Brown	2018

2017/2018 Membership—3

Call	Name		Paid Thru June
W6JJW	Sid	McAulay	2018
W6JTI	Frank	Letton	2018
W6JZH	John G	Galli	2018
W6KR	Robert G	Ferrero Jr	2018
W6NF	Jack	Parker	2018
W6OAT	Rusty	Epps	2018
W6OPO	Bob	Lanning	2018
W6PK	Phill	Verinsky	2018
W6RGG	Robert B	Vallio	2018
W6SFK	Steve	Koster	2018
W6SR	Rick	Samoian	2018
W6TCP	Ian	Parker	2018
W6XB	Kenneth C	Crandall	2018
W6XU	Josh	Fiden	2018
W7IV	Paul F	Merrill	2018
W9KKN	Bill	Fehring	2018
WA6ST	George	Turnbull	2018
WA6ZTY	Michael P	Fahmie	2018
WB6ETY	John H	Street	2018
WB6JJ	William C	Maurer	2018
WC6H	Rich	Cutler	2018
WD6EIW	John	Kozusko	2018
WE6Z	Douglas	Phillips	2018
WJ6O	David	Aslin	2018
WT6K	Alexander	Rendon	2018
WU6X	Dennis	Gregory	2018
WX5S	Matt	Thomas	2018
WX6B	Bill	Sirvatka	2018
K6DGW	Fred	Jensen	2019
K6RBT	Shiloh	Curtis	2019
K6UM	Steve	Lund	2019
K7DX	Mitch	Wolfson	2019
W1RH	Bob	Hess	2019

NCCC Life Members

Call	Name		Paid Thru June
AD6E	Alan	Maenchen	LIFE
K6GFJ	Ross W.	Forbes	LIFE
K6UFO	Mork	Aaker	LIFE
KU6F	Saraj	Cory	LIFE
N6TV	Bob	Wilson	LIFE
N7MH	Mike T.	Heideman	LIFE

Call	Name		Paid Thru June
N7TR	Richard P.	Hallman	LIFE
W0YK	Ed	Muns	LIFE
W1SRD	Steve	Dyer	LIFE
W6SX	Hank	Garretson	LIFE
W6SZN	G. Kip	Edwards	LIFE
WK6I	Jeff	Stai	LIFE

VP/CC Report

A big hello to my fellow testers!

Chris N6WM

I wanted to start by thanking you the membership for your vote of confidence in accepting me back for my second opportunity to be your Contest Chairman for 2017-2018, as well as your Vice President. It is a great honor to support the west coasts premier contest club's membership and contribute to the foundation laid by our 3rd term president, Bob W1RH.

This contest season will prove to be an interesting one indeed. We are approaching a bottoming of the 11 year solar cycle, so keeping the team engaged and using all the tools at our disposal to be effective will be key.

The 2018 World Radiosport Team Championship will occur at the end of this term/beginning of next, of course mid summer next year. I hope as many of you will be participating however you can, either in the chair, as Judges, visitors and of course competitors.

We have started in earnest to assemble a contest program for the upcoming contest season. I had a chance to give a little primer at the NCCC June meeting, and we are still finalizing details of the program. But in short I would like to address the following 4 "pillars" to make our program enjoyable and engaging for all levels of testers on our membership.

1. Review and potential modification of our fantastic and new focus contest/KB program.
2. Review and examination of our participation level in the tri-club NAQP challenge
3. Selection of a major primary contest goal, and plan of action to execute for a win
4. Restoration of club services that can add to the extreme value of NCCC membership

Stay tuned for more information on all of the above. I have engaged some of our most skilled and experienced members to assist in these goals, and I may be tapping more.. perhaps you to help out. When we act as a cohesive team, the NCCC is an unstoppable contest machine, I hope you will join me in helping out when the time arises.

Earlier this month, I had the opportunity to attend the Dayton/Xenia Hamvention. It was my first time attending this world wide amateur event. It was great meeting so many operators that have been in my logs for years. Bottom line, Dayton/Xenia is a nice convention and the location will further develop in the future, but the real value is in the Networking and fellowship shared, particularly with all of our contesting brothers and sisters. It was a great honor to be present in the room as our very own Bob N6TV was inducted into the CQ Contest hall of fame.



In addition to that festive event, I also had the good fortune to attend a RTTY lecture and panel that included Ed W0YK, Mark K6UFO, Hank W6SX and Stu K6TU. It was a very informative panel and seminar, and was of course great to see the NCCC represent our contesting excellence at Hamvention.



I also had the great pleasure of spending Saturday exploring the convention venue with Bob W1RH. This was also a “working” trip representing the NCCC. Bob and I had a number of valuable conversations with the leadership of rival contest clubs, as well as contest managers and chairs.



Flex 6600M

As many of you know, I have been working diligently with Flex Radio systems in helping to mold this cutting edge radio technology for use in contesting. Flex radio introduced 4 new transceivers, generating lots of buzz.

Here is a photo of what may prove to be their contest market breakthrough, the flex 6600M. This rig boasts a built in interface with “buttons and knobs” (should you want them, they also have a black box version) and more importantly, integrated 7th order preselectors.

I am also a dedicated Elecraft, and was excited about Elecraft showcasing the much anticipated KPA1500 linear amplifier. Our friends in Watsonville really know how to reach the heart of a con-
tester!



Really exciting stuff!

Additionally, back on the Homefront, as many of you probably are, we have a full roster of antenna maintenance at both N6RO and at K6LRG.

We were able to complete replacement of both tail twisters on the 15 meter stack at Radio Oakley. Myself (N6WM), Iain (N6ML) were tower climbers with ground support from Gary (NA6O) Bob (K3EST) and his lovely XYL Junko as well as Ken himself (N6RO).

I hope you all think SAFETY first when doing work like this, not just your equipment but check rig-gings, guys, tower integrity etc. This is amateur radio at its most extreme, and we always need to remember.. SAFETY FIRST!

So as you can see, a pretty busy kickoff to the “non-contesting” part of the year. So on that note, I want to wish you, the entire NCCC membership a safe, and fun Summer season. Our new team is working hard to give you a fun and engaging 2017-1018 contest program and stay tuned for more information as the pieces fall together.

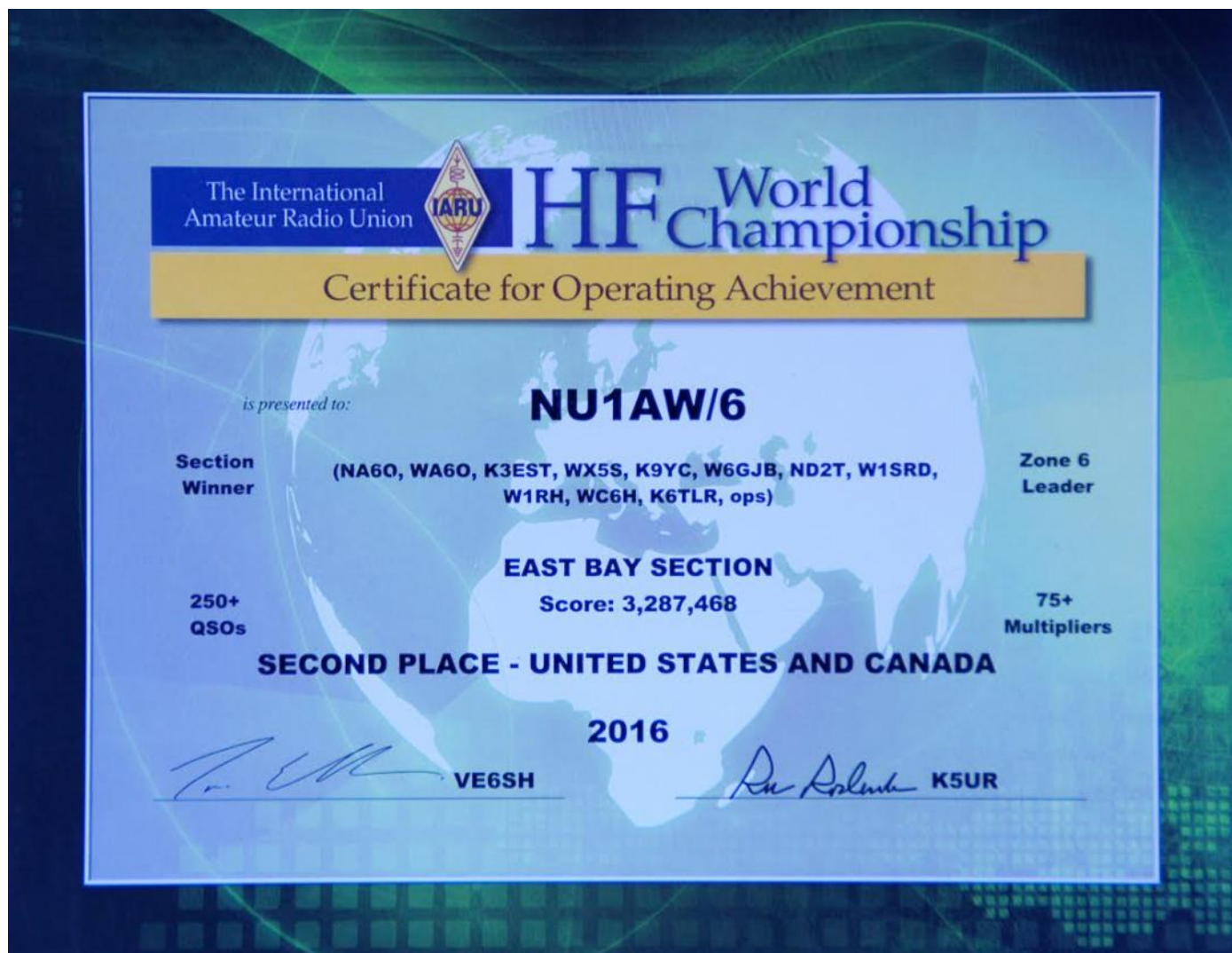
73, KB and seeya next time!

Chris
N6WM
VP/CC



N6WM and N6ML on 140 ft tower at N6RO, K3EST and XYL Junko in foreground
Photo courtesy of Gary NA6O

IARU 2016 Certificate - NU1AW/6



Congratulations to everyone who participated in the NU1AW/6 IARU Headquarters Station operation in 2016.

We achieved 1st place Zone 6, 1st place EB Section, and second place in US/Canada (beat by the W1AW/9 - K9CT crew).

QST article

<http://www.arrl.org/files/file/ContestResults/2016/2016%20QST%20IARU%20-%20Rev%20C.pdf>

IARU article

http://www.arrl.org/files/file/ContestResults/2016/2016%20IARU%20Web%20Article%20V2_02.pdf

Gary NA60

Sierra Chapter BBQ—July 30th 2017

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 radio 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 July and provide sunscreen.

Date: Sunday, July 30, 2017

Time: 11:00 AM until folks leave

QTH: 12921 Filly Lane, Truckee, CA (aka Filly Way) ... on the bluff overlooking Boca Reservoir. Beware very 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 others but please let me know how many.

Food: Ann and I will provide the meat and veggie burgers for the grill and a few salads and drinks. If you wish to bring something more (optional, really), 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 will be warm enough for swimming or water skiing. The rafting season should be ample this year. (Squaw Valley threatens that they may still be skiing on the upper mountain on weekends, but that's not certain!) 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 in advance 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 at the fork 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 dirt area 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

A Little Night Light Music

Don – K6GHA

I had it in my hand, the Trustee certification for a club station for NG6O arrived by mail at the last day, and minute, from the FCC. It was just in the nick-of-time to operate in the CQ Worldwide WPX CW contest, and run QRP (5 watts) where I was able to make an incredible 14,000 mile contact. And as Paul Harvey use to say, “**And now, for the rest of the story**”.

The Vanity Call

I got my Extra License and wanted to have my father’s old call as my primary call, I previously wrote about my desire and the process to acquire one. To recap, just think; FCC paperwork, a little luck, and persistence! A list of available vanity calls, and instructions on how to go about the process in obtaining one, is on the W5YI website (<http://www.w5yi.org>) as well as the ARRL web site. Some groups charge for this service, but there are ways in which you can apply and do not have to pay for this service.

The Club Call

I had long considered obtaining a club call for contesting purpose for those unique events where a 2x1 call would be desirable. I had looked at many call signs posted and available as vanity calls. My thinking was to apply for one that had ‘character’ as a club call. However, I could never seem to win the toss up of a lot of folks competing for the same call.

To make sure I made a good choice, I learned more about the advantages of having a contest station call (or vanity call for that matter). Something to consider in contesting is how long it takes to send and receive the exchange in a contest, for both CW and Phone operation. The shorter, and better sounding, has advantages. Finding a call that sounds good generally contains rhythm elements. They are based in time, spacing, and sound. Both of the ‘Time’ and ‘Sound’ elements make up what is referred to as the Relative Weighting of a call. In CW the number of dots and dashes a letter takes to send [like E = Dit (1) or Y = Dah Dit Dah Dah (4)], and in Phone ops it measures the phonetic weight of the call (like N = NO-VEM-BER = 3). You add these all up for a call sign, and you have its Weight. A distinctive call stands out for its clarity, uniqueness, and brevity. In a contest, those criteria play a big role in speed, ability to copy, or be picked out from a pile-up. To check the weight of your current call you can query your call (LookUp) on the AE7Q website: <http://www.ae7q.com/query/>. The page will take your call and return its results in the upper right corner showing both the **Phonetic** and **Morse weight**.

Club calls are also a bit different in that there are a number of FCC rules and regulations about obtaining and managing one (and only one per licensed operator, this is in FCC 97.5 section 2, amended in 2010). The Club Call is assigned to a licensed operator in the capacity as Trustee. With it are implied responsibilities in forming a club, and maintaining correct records, meeting minutes, and operation. More about club calls and trustee responsibilities, paperwork, and step-by-step application processes can be found at: <http://www.arrl.org/club-call-signs> and <http://www.w5yi.org/page.php?id=203>

The Legacy

In a majority of instances club trustees, and their clubs, dissolve upon their passing (SK) of the owner. Without renewal or trustee transfer, the club call is recycled through the vanity process. In my case, I was notified of an availability of a club call. I decided that its legacy purpose should continue and reflect the intent envisioned by the founder. I felt becoming the trustee for this call was more appropriate than letting the call be released back into the general population. Through email, I con-

tacted the XYL of SK Ham, and worked with her to fill out the required FCC form 605-C. The completion and submission is tedious for getting approval, in this case it included; Change of Trustee request, change of club address, change of club name, a renewal of the license, recording meeting minutes, and establishing a new board of directors (real licensed folks). This took a few weeks to work through the red tape, and insure all forms and documents were in order for the FCC. Then the wait began for the approval.

The Event

My home mail arrives generally about 3pm. This particular Friday's it included my FCC authorization paperwork as the new Trustee of the new Club Call Sign NG6O. The clubs group is renamed to honor the SK, and is now known as the Fearless Radio Operating Group (FROG). I found myself pretty excited, until I realize that the CQ Worldwide WPX contest is starting at 5pm, in just a minutes. In order to use the new club call for this contest I had some configuration changes to make in the N1MM+ logging software to ensure that correct exchange information is sent. A bit of testing, and the start of the contest happens. Based on my schedule and limited time to operate, a snap decision for power choice (QRP, 5 watts or less), band (20 meters only), and class (Assisted to spot rare DX stations), I make my choice for the contest.

Ok..., 5 watts QRP from the west coast may not be all that great of a choice for super DXing in contest situations, especially with the East Coast Wall of operators, and a majority of contesters running either Low Power (100W) or High Power (1500W), but as it happens that particular Friday night was some of the best propagation to Europe in quite a while. My expectations were low. However, even with my time limited and power, I was amazed at the addictive fun of making the best from a challenging choice. Each contact was well earned. 45 countries, 24 CQ Zones, 178 QSO's (contacts) logged for the contest (the majority on Friday night), and the one monster long distant contact to North Sulawesi Indonesia. Thank you to the operator at the other end for staying with my repeated calls, and QSO clarifications. Those were good ears at 14,000 miles away. Here's a map of some of my contacts.



14,000 miles on the power of a night light.

And as Paul would say, "And now you know the rest of the story"!

My many thanks and continued appreciation go to family and Ham friends of the previous club station owner of NG6O. I hope to represent well in future contests, and keep the call on the air for many years.

Don – K6GHA

Map courtesy of (<http://tools.adventureradio.de/analyzer/>) phpQW Tool Log Analysis

NCCC Meeting Dates ~ 2017

Tuesday, July 11th Sneha 1214 Apollo Way, Ste 404B, Sunnyvale, CA 94085
Program VP/CC Presentation

Sunday, July 30th Sierra BBQ RSVP via Rick N6XI
See page XX

Saturday August 26th, 11am, Venue TBA
Annual BBQ

Saturday September 30th, 11am, El Tapatio 40 Golf Club Rd, Pleasant Hill, CA 94523
Program CQP, County DX-peditions

Tuesday, October 10th Sneha 1214 Apollo Way, Ste 404B, Sunnyvale, CA 94085
Program, TBD

Tuesday, November 14th, 6PM, Tied House 954 Villa St, Mountain View, CA 94041
Program, TBD

Saturday, December 16th, 11am, 2960 Shoreline Boulevard, Mountain View, CA 94043
NCCC Holiday Party (Michaels at Shoreline)

New 40 Meter Phased Vertical Array at N6RO

Gary Johnson, NA6O

A major event at N6RO is the California QSO Party where we run a multi-multi operation including simultaneous SSB and CW on some bands. This leads to some in-band interference problems and that is the main reason for this project. The primary antenna on 40 m is a 4/4 Yagi stack located toward the Western part of the property. A simple sloping dipole, oriented toward the East, was rigged off of a tower at the East end of the property (Fig. 1). While usable, the SSB station, operating on the stack, often suffered interference from the CW station on the sloper. The transceivers were all K3s, so signals are already about as clean as possible, and turning down the power was not in the cards, so instead we sought more antenna isolation. As a bonus, having another quality antenna on 40 m would provide a backup for the stack. And everyone knows you can never have too many antennas.

Three goals of this antenna design were to increase isolation through:

- Maximizing distance between antennas
- Polarization
- Pattern



Figure 1. Plot plan, highlighting the 40 m antennas.

To keep cost and complexity low, we settled on a conventional phased array of two full-sized verticals with elevated radials. It was sited on a hilltop at the Southeast corner of the property, as far from the 40 m stack as possible. With quarter-wave separation and both elements driven with 90° phasing, a cardioid pattern is produced. When pointed East, the null is toward the stack while still providing good coverage North and South. Such an array meets all our basic requirements.

1. One Test Antenna

With the help of Lee, KI6OY, we visited the N6RO bone pile and picked out an element from an old KLM 40M-2 and put that up in the desired location with four elevated radials at 10 ft. My main concern after testing this short (23-foot) antenna was that the feedpoint impedance was very low, only about 18 ohms at resonance. This is problematic because, when placed in a phased array, the impedance will be even lower. That leads to extra ground losses, more loss in the phasing network, and narrower bandwidth. For those reasons, I switched to a full-sized element for the final design.

The test antenna did show that its isolation was superior to the sloper, so we knew we were on the right track.

2. Simulation in EZNEC

This is an easy antenna to simulate (Fig. 2). My main objectives were to optimize elevated radials positions and to try various phase angles. I also simulated the entire phasing network, using the examples supplied with *Low-Band DXing*[1]. This was a great educational exercise.

Table 1 shows some of the results when varying phase. It turned out that, around 100°, a deep null appeared exactly at the angle where the 40 m stack would appear, so I decided that anything between 90° and 100° would be acceptable. Peak takeoff angle is 20° but there is plenty of high-angle radiation for short skip contacts during CQP.

Table 1. Array Gain Versus Phase

Phase	Gain, dBi	F/B, dB	Beamwidth, deg.
80	3.1	18	181
90	3.4	30	169
100	3.7	25	158
110	3.9	17	148

Since this antenna is located near the 80 m four-square, I also ran simulations including the nearest 80 m element. There will be significant coupling to that element, so 40-80 m band isolation requires attention. Also, the pattern will be distorted to some degree (mostly you lose the deepest null off the back). Of course, there are even more conductors out there: Guys, other radials, and a nearby tower. All of these affect pattern and antenna impedance.

The most useful simulation was radial positioning. I wanted at least three radials but four was even better. I found it important to avoid overlapping radials, or having their ends very close. Also, a fully symmetrical radial layout is required to establish a symmetrical pattern. Finally, I verified that the antenna is well-balanced so the common-mode chokes will dissipate little power.

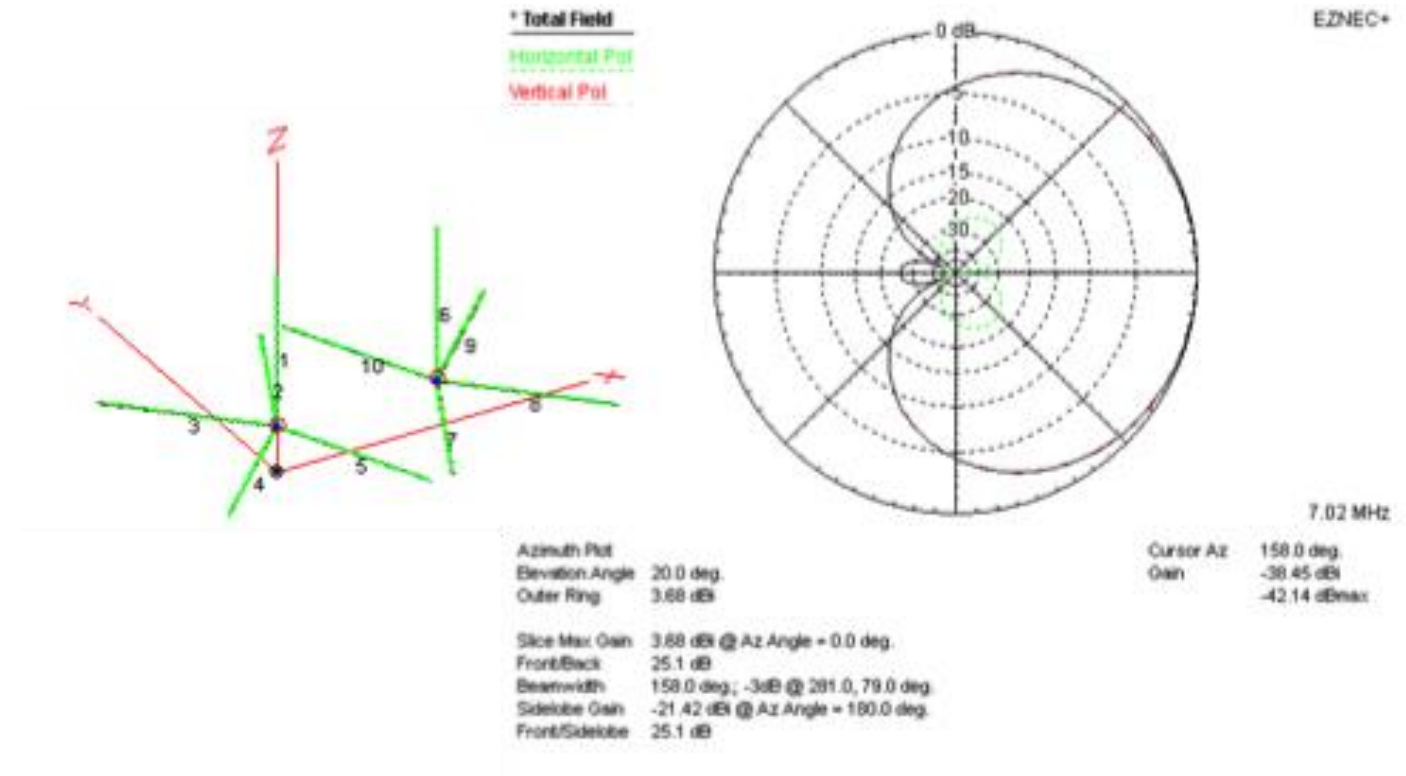


Figure 2. Simulation results for 100° phasing. A deep null occurs at 22 degrees off the back, right at the angle towards the 40 m stack.

3. Antenna Fabrication and Installation

We added about 13 ft of aluminum tubing to each old KLM element to get to full-size. Some of that came from the bone pile and the rest was nice new DX Engineering telescoping tubing. Each base was elevated on 10 ft of 2-inch schedule 80 PVC conduit and bolted to a 4x4 set in concrete. John, WB6ETY, helped me erect the antennas and tune the radials to resonance around 7045 kHz (Fig. 3). We were very careful on the site survey to make sure everything was as symmetrical as possible.



Figure 3. WB6ETY bolts the East element into place.

4. Calculating Component Values

Everything I needed to know was included in *Low-Band DXing* and the *ARRL Antenna Handbook* [2]. A fundamental decision is what type of phasing network to use. The most flexible topology is based on quarter-wave current-forcing transmission lines to each antenna with an L network to generate the phase shift.

The real magic in these phased array designs is coming up with the actual drive point impedances, which are the impedances when both elements are driven with the desired phase relationship. You can't directly measure this, but you can obtain it from an EZNEC simulation, or through calculations. Required data for the calculations includes the free-element impedances (with the other element disconnected), and the coupled impedances (with the other element grounded to its radial system). After antenna installation, I used my antenna analyzer, a RigExpert AA-54, to make these measurements of complex impedance for each of the completed antennas at the design operating frequency.

I used three handy calculators to come up with the required component values. First is a spreadsheet that comes with *Low-Band DXing*, which computes the drive point impedance from the measured data. Second, I used an application from the *Antenna Handbook* called *ArrayFeed1*. It computes values for the L network that generates the 100° phase shift, and also the system input impedance. Third, I use *TLW* to come up with L networks to match the input impedance (in each mode) to 50 ohms.

5. Phasing Box Design and Assembly

Some relays are needed to switch between East, West, and Omni modes. I made one compromise to simplify the switching: I used the same phase shift network for both East and West modes. This won't be perfect because the two antennas are not truly identical. But simulation showed that this is close enough. In Omni mode, the two elements are simply driven in parallel.

Inductors are all relatively small and were wound from #10 solid copper wire. For capacitors, I took the advice of VA6AM and bought Russian surplus transmitting doorknob caps on Ebay (search for K15Y). These are a *great* deal compared to anything else I could find. Voltage ratings start at about 3.5 kV, and many are rated in kVAR. Temperature coefficients are N470 or N1500, which is ok for a network like this with low sensitivity factors. Shipping from the Ukraine took about 10 days.

Figure 6 shows the system wiring diagram. Common-mode chokes are very important for this system. Without chokes at each antenna feedpoint, common-mode current would couple directly to the other element with unpredictable results. The feedline and control cable from the shack are also choked for the usual reasons.

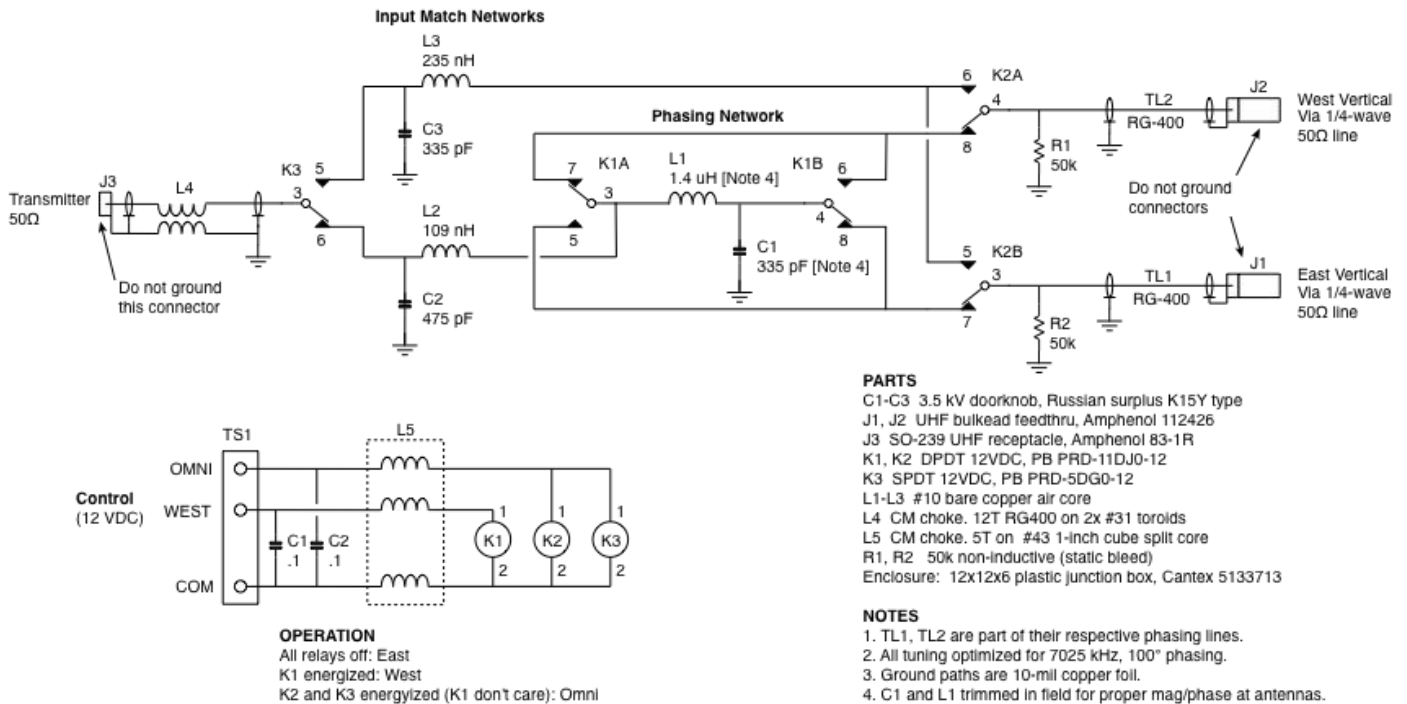


Figure 4. Phasing box schematic.

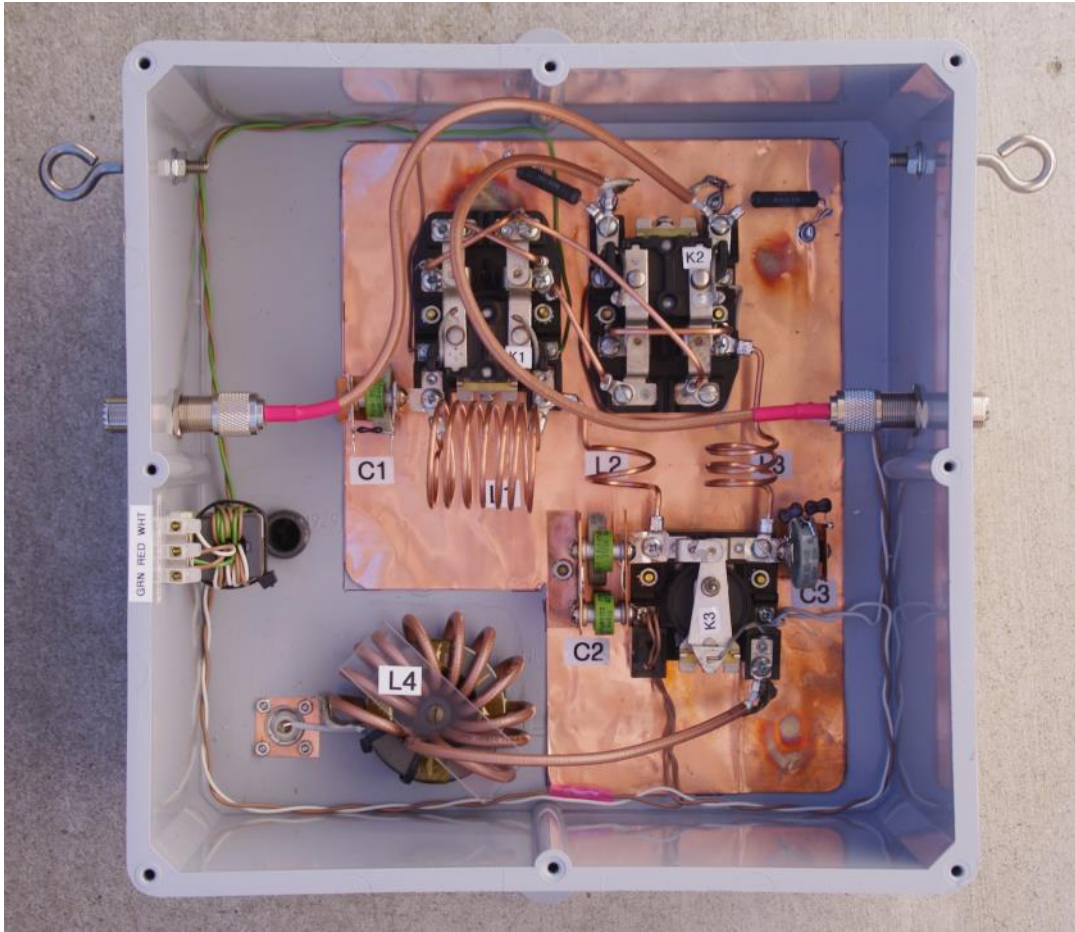


Figure 5. Phasing box internals. The ground plane is 10 mil copper.

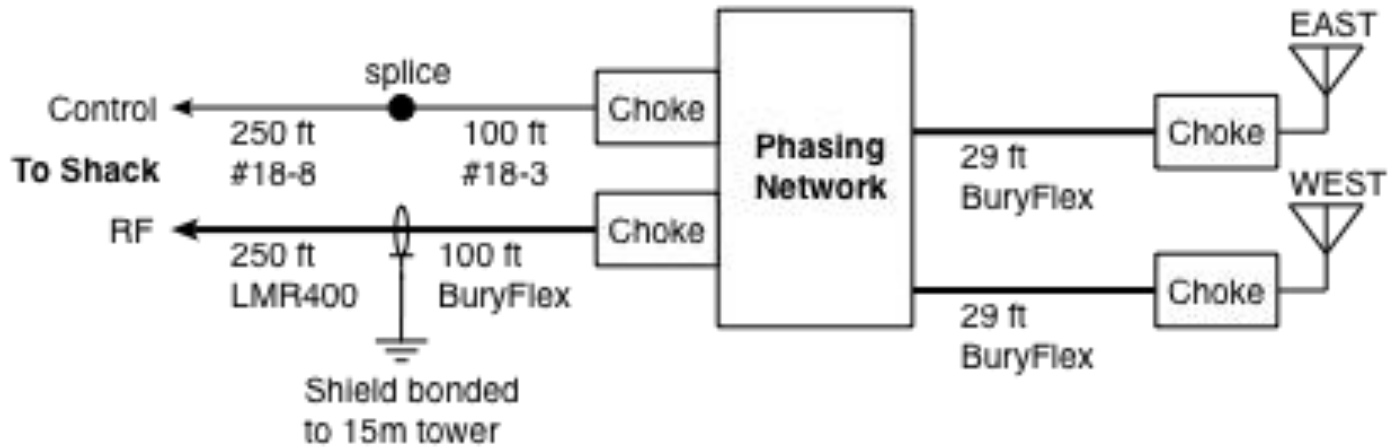


Figure 6. System wiring. Everything is well-choked.

6. LTSpice Phasing System Simulation

An LTSpice model (Fig. 7) was constructed to confirm the calculated network values and to provide estimated sensitivity factors for empirical tuning in the field. It uses calculated values as built into the phasing box. Currents through the loads are compared to verify magnitude and phase. Plotting the ratio of V_{in}/I_1 provides the system input impedance.

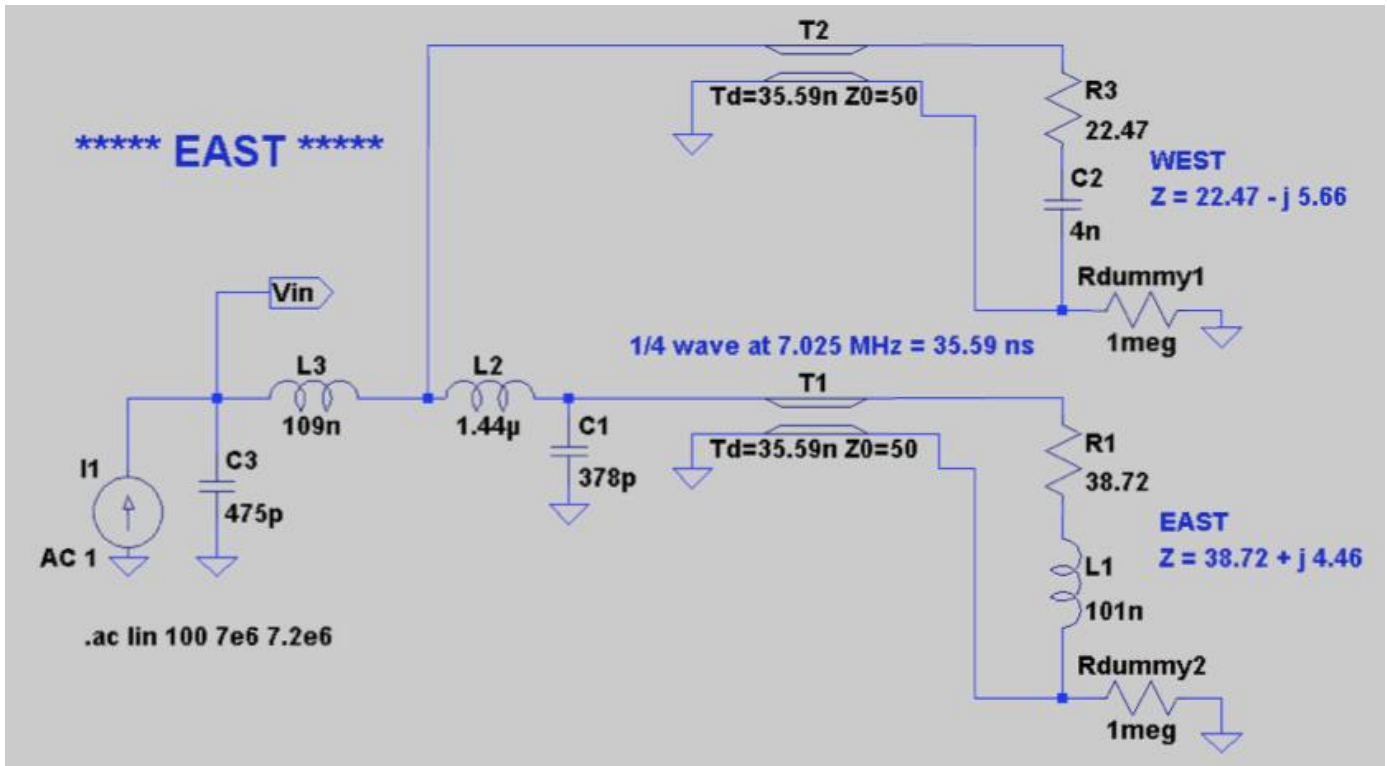


Figure 7. LTSpice model for the complete phased array.

7. Final Installation and Tuning

Everything was connected on-site and prepared for empirical tuning to optimize phase and amplitude matching in the Easterly direction. I noted that the impedance of the verticals had changed in the weeks since initial measurements were taken. So clearly some final tuning was going to be required.

For any phased array, the best tuning method is to measure RF current at the base of each element and compare the magnitude and phase. The method is described in ON4UN's book. I built and calibrated a matched pair of current transformers, and also a match pair of connecting coaxial lines. Chokes were placed on the coax to prevent any unexpected interaction with the antennas. Magnitude and phase were measured with my DG8SAQ VNWA network analyzer, used in transmission mode. Its output drives the array at the transmitter input to the network, while its input is connected to one or the other of the current transformers via a small RF switch. By toggling back and forth, you quickly get a relative reading of magnitude and phase with high precision.



Figure 8. At the antenna feedpoint, you can see the mighty K9YC-approved choke on the phasing line. Inset: A temporary current transformer is connected via a (choked) test cable.



Figure 9. The tiny VNWA is on the left. I used the old cardboard box trick to see my laptop in the sun.

Initially the measurements were noisy due to dirty relay contacts. Another problem was that the wind was blowing fairly hard and the verticals are quite flexible, so the readings moved around by 5 degrees or more at times.

Adjustments were made by temporarily adding and removing small capacitors and by manually stretching or compressing the inductors. Final capacitors were bolted or soldered in place. The only adjustments needed were to the main 100-degree phasing network and a little bit on the matching network for the Omni mode. In the end, C1 was reduced by 12% from the calculated value and L1 was changed by a small but unmeasured amount. Final Easterly phase at 7025 kHz was 97° (vs. 100 desired) and the magnitude match was within 0.3 dB. Before tuning, the phase was 86° and the magnitude match was about the same, so if I had not gone through this process the array still would have worked well.

Switching to Westerly, phase was 101° and the magnitude difference was 1.0 dB. This is quite good considering that I chose not to use a separate phasing network in this direction. In Omni mode, phase was zero as expected and magnitude difference was 0.5 dB.

The match was fine in all modes for the CW portion of the band, which was our objective. In retrospect, I could have tuned the verticals higher and achieved a better match for the entire band.

8. Testing in the Shack

Remote control switching worked fine and the match was excellent as expected; you can hardly miss when the load has a good match, and there is 350 ft. of transmission line in the field.

But here is the most interesting measurement of all. Remember that our primary goal was high isolation between the Yagi stack and this new antenna. How do you measure that? With the VNA of course. I haven't seen this reported as a standard procedure, but it sure is better than looking at an S meter. The technique is simple. Using the VNA in transmission (S21) mode, drive one antenna while measuring from another. Now you have a truly accurate full-system measurement of loss (isolation) at all frequencies.

With the Yagi stack pointed in the nominal Easterly direction one would use during CQP and the vertical array in the East mode, isolation was a pleasing 55 dB (Fig. 10). In West mode it was 41 dB, and in Omni mode it was 45 dB. Thus we have at least 10 dB of pattern-related isolation from the verticals, in addition to polarization isolation. In comparison, the old sloper showed only 35 dB of isolation (a few dB of that is from the 300 ft of RG58 that feeds it!). The net improvement with the new antenna is therefore 20 dB.

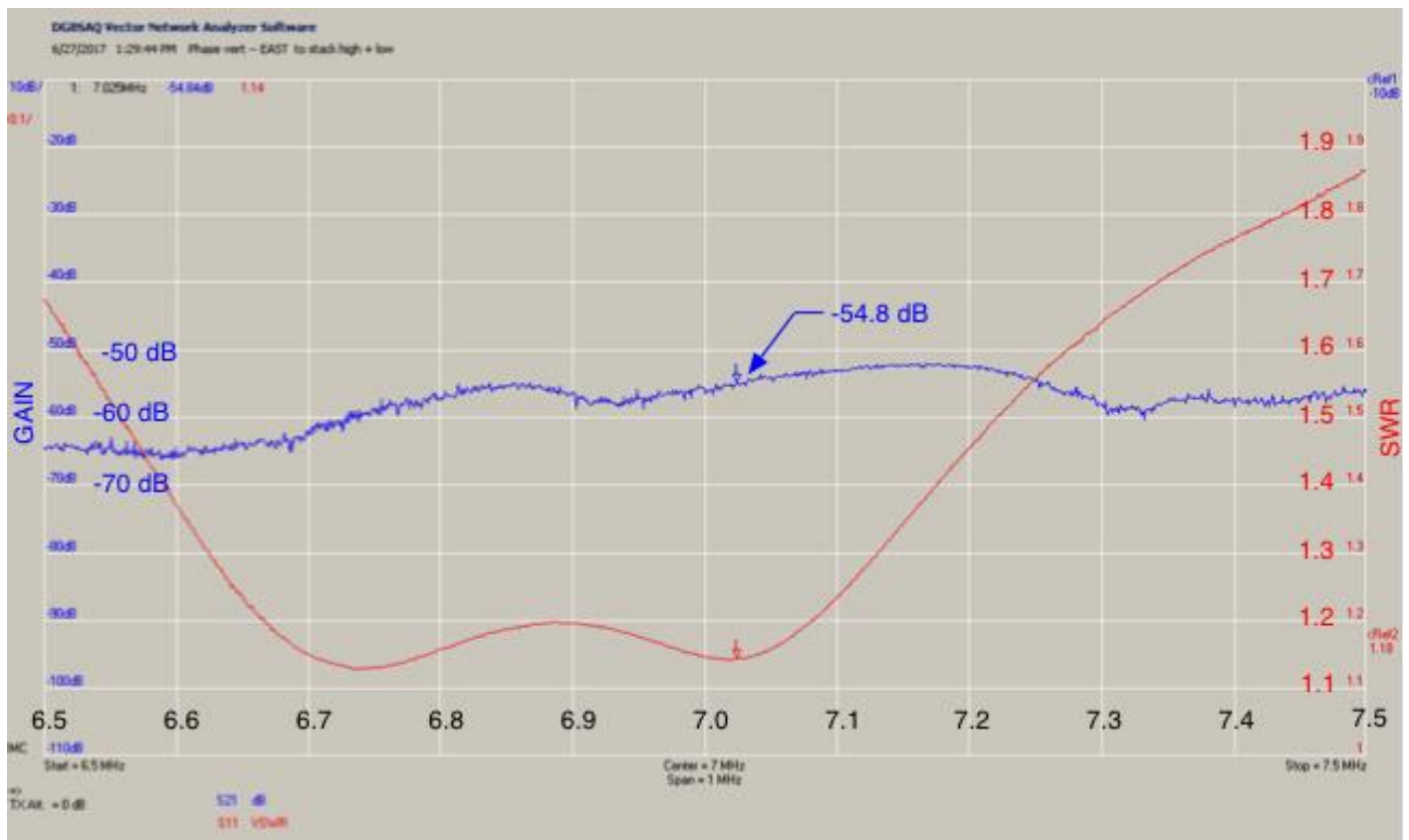


Figure 10. Isolation (gain) from the vertical array to the stack. Both antennas are pointed East. Measured in the shack.

Next, I turned to isolation with respect to the 80 m four-square. Again using the VNA to measure isolation, I found that it was 38 dB at 3.5 MHz and 34 dB at 7.0 MHz. Simulation in EZNEC predicted only 27 dB at 3.5 MHz, so I am glad it is better than that.

What does all this isolation data really mean?

For 40 m operation using the Yagi stack and vertical array, if we deliver 1 kW to one antenna, 2.5 mW (+4 dBm) will appear on the other. That would be S9+80 dB but will not damage the receiver. In comparison, using the sloper would result in 316 mW at the receiver, which worries me. No wonder there were problems in past operations.

On 80 m, quite a bit of power is exchanged between the four-square and the vertical array—nearing a Watt for the fundamentals. This demands bandpass filters to protect the receivers in both directions. We already have multiple levels of filtering at N6RO so this is taken care of. Coupling of 80 m harmonics can also be a problem. Again, our use of stubs plus high-power bandpass filters should be sufficient.

In on-the-air testing, East-West directionality is plainly audible. N6RO reports that, for domestic contacts, the vertical array is down about an S unit. Not bad for a couple of aluminum sticks! K3EST reported that it was not nearly as good toward Japan, however. Pickup of our notorious PG&E line noise is worse on the verticals, likely because they are situated with medium-voltage power lines on two sides, only 45 feet away. The *real* test will be the next CQP.

9. References

1. John Devoldere, ON4UN, **Low-Band Dxing**, 5th Ed., Chap. 11, *Phased Arrays*.
2. **ARRL Antenna Handbook**, 22nd Ed., Chap. 6, *Multielement Arrays*.

NCCC Annual KB Competition Rules



Purpose: To provide a means of rewarding NCCC members who are DX contesters, sprinters, VHFers, and especially active contesters.

Time period: The contest year starts March 1. ARRL DX SSB is the first contest of the year. NAQP RTTY is the last.

Eligible contests: Currently, points from 35 contests are counted. See the table on the next page

Scoring: Score = number of contests in which you participated * sum of (points for each contest * each contest's multiplier).

NCCC weekly sprints are special. Points for the entire year are added up, but it is only counted as a single contest.

Multi-ops: Points = total score divided by the number of operators.

Station owners: A station owner who does not participate in a particular contest receives 25% of the points.

Only scores posted to 3830scores.com are counted.

Paid NCCC members may receive awards.

NCCC Annual KB Competition Table

Contest	Month	Multiplier
ARRL RTTY Roundup	January	50
NAQP Winter CW	January	50
NAQP Winter SSB	January	50
NA Sprint Spring CW	February	100
CQ WPX RTTY	February	2
ARRL DX Contest CW	February	5
NAQP Winter RTTY	February	50
ARRL DX Contest SSB	March	5
CQ WPX SSB	March	2
NA Sprint Spring SSB	April	100
JIDX CW	April	TBD
Ontario QSO Party	April	TBD
7th Area QSO Party	May	TBD
New England QSO Party	May	TBD
CQ WPX CW	May	2
ARRL June VHF	June	200
All Asian CW	June	10
IARU HF World Championships	July	5
NAQP Summer RTTY	July	50
NAQP Summer CW	August	50
NAQP Summer SSB	August	50
NA Sprint Fall CW	September	100
CQWW RTTY	September	1
NA Sprint Fall SSB	October	100
CQP	October	20
JARTS RTTY Contest	October	5
CQWW SSB	October	1
ARRL Sweepstakes CW	November	20
ARRL Sweepstakes SSB	November	20
CQWW CW	November	1
ARRL 160 Meter Contest	December	50
10 Meter RTTY Contest	December	100
ARRL 10 Meter Contest	December	10
NCCC Sprint CW	Weekly	100
NCCC Sprint RTTY	Weekly	100

NCCC Meeting July 11th

Tuesday, July 11th

6pm Social, 6:30pm Dinner, Program 7pm

Sneha 1214 Apollo Way, Ste 404B, Sunnyvale, CA 94085

Program VP/CC Presentation. Chris N6WM

AV Support

We are looking for a AV / Webex volunteers to help run the AV and webex for the meetings.

Please contact Bob W1RH if you are interested....

NCCC Life Membership

NCCC Life Membership is available for a one-off payment of \$250.00

If you would like to apply for life membership, please submit your request using this link [here](#)

Each request will be reviewed by the NCCC BOD at the regular monthly BOD meeting.

For further information, contact Ian W6TCP



WORLD RADIOSPORT TEAM CHAMPIONSHIP JULY 12-16, 2018



Our way to 2018

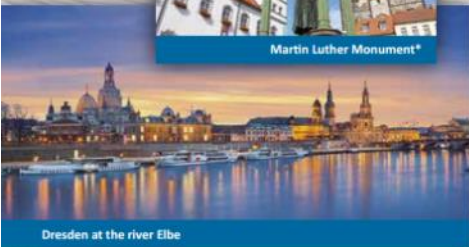
Having been elected to host the WRTC 2018 in Germany is a great honor, a thrill, and a big challenge for us. The critical tasks have been clearly defined. Dedicated and highly motivated teams are addressing the challenges.

For the competition itself we have chosen the Jessen area south of Berlin for its flatness providing level playing fields for all competitors. Jessen is strategically situated between the German capital of Berlin and such fascinating historic cities like Dresden and Leipzig.

Nearby you find important cultural attractions, e.g. the historic city of Wittenberg where Martin Luther launched the Protestant Reformation in 1517. Additionally, the scenic countryside and a lot of entertainment will make the WRTC an exciting experience for families and friends as well.



Martin Luther Monument*



Dresden at the river Elbe

* Source: Lutherstadt Wittenberg Marketing GmbH ©

We need your support!

You need deep pockets to finance such a huge event. Our preliminary cost estimates add up to close to half a million US Dollars and cannot be shouldered by the German contesting fraternity alone. We need substantial financial support of contesters from all over the world, from contest clubs, individuals and business. Any amount is welcome! We will do our level best to translate this support into an event that is worth to take part in - be it as a competitor or spectator, either on the spot or remotely via Internet. You are welcome to donate via PayPal to:

spende@wrtc2018.de

or to use wire transfer (see Web Page for details).

For US taxpayers

The World Wide Radio Operators Foundation (WWROF) is recognized by the IRS as a tax-exempt public charity. In order to be eligible for Income Tax treatment of your donation to WRTC 2018 just contribute to WRTC2018 in one of the following ways, either via PayPal to:

WRTC2018@wwrof.org

or by check - remit and mail to:

WWROF Inc. - WRTC2018 Fund
P O Box 10424
Midland, TX 79702



Note: It is important that mailed contributions include notification that the donation is specifically for WRTC2018.

Contact the WRTC Team

www.wrtc2018.de
contact@wrtc2018.de

E-Mail: contact@wrtc2018.de | Web: www.wrtc2018.de | Facebook: [wrtc2018](https://www.facebook.com/wrtc2018) | Twitter: [wrtc2018](https://twitter.com/wrtc2018)



WORLD RADIOSPORT
TEAM CHAMPIONSHIP

Welcome to Germany!



Proud bronze medalists at WRTC 2014 - Manfred Wolf, DJ5MW and Stefan von Baltz, DL1IAO (Foto: DK9IP)

Competition with Friends

Lifetime Experience

Make it happen!

Contesters' Olympics

BOD Meeting Minutes
Monday 12th June 2017
6pm Local

Attendees:

Bob W1RH
Chris N6WM
Ian W6TCP
Dick K6LRN
Ron N6IE
Rusty W6OAT
Rich WC6H

Ian W6TCP opened the meeting at 6:03pm. Minutes and other documents had been distributed to the BOD members prior to the meeting.

Ian W6TCP mentioned that the May Jug Publication is overdue for May due to several challenges at work and in the shack and hopes to get it out in the next week. Sent out 6/16

1) Mins from last Month

Starting in June, the BOD minutes will also appear in the Jug.

2) Elections

Ian W6TCP started that just before the general elections we have this fire storm each year and we start looking for a new slate of officers. We need to find a way of bring in new officers early so we don't have the same problem again. This was also mentioned by several of the members in the recent 3rd term vote.

We are now in a better place as not all the BOD positions need to be replaced every year as some officers may opt to say on 2 and 3 terms so we might not have the churn of all the officers each year that we have seen in the past.

Bob W1RH stated that the Director positions are much easier to find and the challenging roles are the Treasure, Secretary and President.

Rusty W6OAT suggested that we start getting a list of potential people options together and start speaking to them now so we have a good idea early on who will be taking over rather than leave this to the last minute.

Action item is to send Ian W6TCP a list of potential candidates so we can be better placed for next year.

Ian W6TCP mentioned that this also applies to the other positions i.e. JUG editor so someone with fresh ideas can take over and move the newsletter to the next level.

We will review the list at each BOD meeting.

Chris N6WM said the Treasurer and Secretary are by far the hardest to fill.

Ian W6TCP mentioned there might be other ways to lighten the load further i.e. have a membership chair (non-elected position). The downside another person is required, but the plus is the workload is shared further. I am not too sure that the Treasure could be parsed out any further but some of the process should make this easier on both the Secretary and Treasure.

3) 2017 Task List

2017/2018 Officers have started putting a list of tasks/projects together that we intent to complete this year. We will review this list in more details at the next BOD meeting.

4) 501C3 Status

Last update from Norm stated were 60-90 days out (due to the government process) at least its moving forward.

5) KB Awards

Gary mentioned via email that discussions via email have started with Bob W1RH and Chris N6WM.

6) Budget Report (Dick)

Dick provided the budget and this was distributed with the meeting minutes.

There was a (long) discussion regarding the repeater fund. This will be tabled until a further BOD meeting to determine the plan/need. Ian W6TCP and Bob W1RH will discuss this further off line.

Ian W6TCP will also speak with Chris N6WM about other communications options.

7) Life/Member applications (Ian)

No additional life member's applications have been received.

Two new member's applications have been received and these will be voted on at the July meeting.

8) 2017/2018 Membership Dues

July 1st is the renewal dates for those that wish to pay dues. Ian W6TCP will be prepping the re-novels process and a communication will be going out to the members. Automated emails will commence 6/24

Bob W1RH mentioned, with the nonprofit status coming up, it poses an interesting question current dues optional policy should be revisited.

There will be a broader discussion regarding whether we will move to an “dues” only option over the coming months. We may decide to speak to various members to gauge how this might be received. the dues. For this year (2017/2018) we will remain dues optional.

9) Meetings for 2017 (Ian)

Meeting dates and locations for the rest of 2017 have been put together and will be published in the May JUG. Ian W6TCP

NCCC BBQ Venue. Bob W1RH is working on finding a venue. Dennis More and Norm are options. N6RO is a fall back option if need be! Cost was \$3k so it was expensive due to the cost of the tent.

Chris N6WM will find/identify presenters for the meeting that are TBD.

We also need to find a program for the December meeting. Ian W6TCP, Chris N6WM and Bob W1RH will discuss options. Bob also suggested we speak to John again. Ian will follow up with John.

Chris suggested getting some singers. Bob thought of K6SRZ and the group.

10) CQP

Bob W1RH still needs to ship the wine.

Rule changes are ongoing (Ron/John)

CQP 2017 is three months away.

11) New Business / Tracking

Following items are here for tracking:

NCCC 250 Mile Circle

Need to finalize what needs to be done but a small change to the bylaws needs to be made. Ian W6TCP and Bob W1RH will discuss further. 175-mile circle can only be voting members. Needs to be addressed at some point. Ian W6TCP to add it to the list.

501C3

There is a bylaw change that we need to invoke because of the 501C3, this will be presented to the members after conclusion of the 3rd Term amendment, and possibly the club circle discussion.

K5RC

Chris N6WM will speak to Bob W1RH to obtain the details and then determine what we do next if anything.

PC for Matt WX5S

Looking for a new/upgraded PC for Matt for the KB competition automated system. Ian W6TCP will get the spec from Gary. More to come... Need the non-profit status unless we can get a loaner system for the time being – idea from Rusty W6OAT.

12) AOB (All)

Bob W1RH

NCCC Clothing store. Ian W6TCP to draft several options.

Alison (Tom's daughter) & Dennis Moore wife has a store also. Ian W6TCP follow up on options.

Ian W6TCP

We still need an AV person!

Meeting ended at 6:52pm

##END##

Recorded by Ian W6TCP

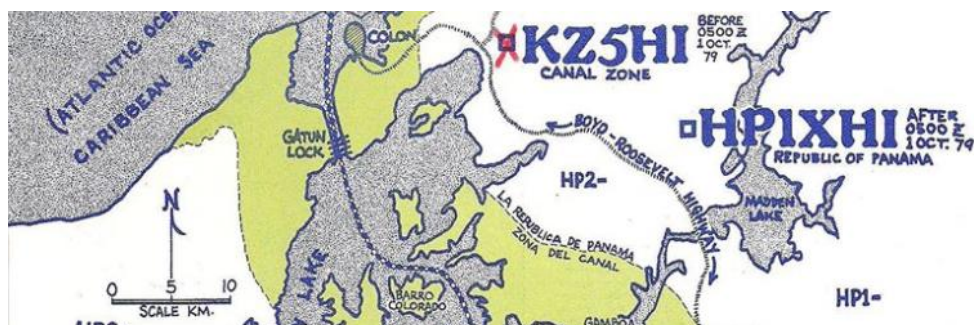
NCCC Secretary 2016/2017

JUG Editor 2011 - present

+1 925 405 5835

w6tcpian@gmail.com

KZ5 Cards ?



My name is Mike Paulson, and I am working to create a comprehensive, historical record of ham operators who were active in the Panama Canal Zone from 1920 to 1979. I need your help!

The Canal Zone was home to a unique population who shared a very special time-limited experience. Ham operators played an important role in it with phone patches and messages back and forth to the US for both Civilian and Military personnel. For all you DXer's out there they were a prized contact. My mom, Mary Jane Paulson was KZ5MP in Gatun, Canal Zone, 1968-1979, and KA4CZC in Tallahassee, FL 1979-1996. When vanity calls came out, she was able to get her KZ5MP call back and held that until 2006.

I am seeking to identify all the Canal Zone ham operators either through their QSL Cards or through the White Horse call books. Sound impossible? Not with your help!

You can help by looking through your QSL cards and doing one of these things:

1. Scan the front and back of your KZ5 cards and email the scans to me at kz5land@yahoo.com or post them to the Facebook group I have for the project. <https://www.facebook.com/groups/532860190101682/> "Canal Zone Ham Operators" .
2. If you would like, you can send me the cards for scanning and I will return them to you post haste. Just include a SASE.
3. The other item I need, are scans of the KZ5 listings from the White Horse call book (Pre-1952). It is very important that I know the Year and Season. High quality scans are critical so that they are readable when enlarged.

Ultimately, after I have been able to gather as much information as possible, I plan to turn it over to a museum or library of Canal Zone or Ham Radio history.

I do this to honor my mom, and all the other Canal Zone Hams. Please, be a part of this effort to record our history!

Even if you can't help, I invite you to stop by for a look see at the Facebook group, and let me know what you think.

Mike can be reached at kz5land@yahoo.com

Point Generator Profile

By Bob, W1RH

Ian, W6TCP

When I asked Ian if he could do a Point Generator Profile for HIS Jug newsletter, his comment was....."Well, I don't have a lot to show"! The reality is that he does not only have some good pictures, but he also has a lot to say.

Now, more from Ian:

Name/Call Sign: Ian Parker, W6TCP

Past calls: G4YUZ, (Technically this is still a current call, but only used when I go back to the UK/Europe. I have held the call since the early 80's)

Location: Milpitas, CA

How much property do you have? Technically ZERO at the moment as we rent a single family home in Milpitas. However, there is side access to the back yard and the trailer tower lives round the back of the house. This had nothing to do with selecting the house of course!!!!

Describe your antenna system:

Current: 50Ft Trailer Tower with a rotatable multi band dipole (40-6). No antennas for 160/80 this is a problem which will be rectified in time for the NAQP's!

2 x M2 loops for 50MHz at remote station on Sunol Ridge (Only 6M equipped & recent addition)

Direct TV dish for 10GHz 1 watt (portable system)

Future: Depends on a number of factors. Unless a miracle happens I might end up doing remote operation or accept the fact that I will become a pea-Shooter station. Totally inspired by NA6O and what Gary does from home.

I also get more satisfaction from using the equipment I have built rather than the off the shelf hardware. Sometime I am amazed it works!

I would also like to get back into DXing on 144MHz and the only way to do that in California is via the moon. I have a station ready to go as time / space becomes available. I also have hardware for 1296MHz including a 500 watt SSPA.

What's in your shack?

Favorite radio is my Elecraft K2 (fully loaded), which I build 2005, I also have KX2, K1, 2 x K3, KPA500, P3, KAT500. I am in the process of building a 1KW Amp HF+6m which needs about 5 hours to finish. Various test equipment. 10GHz Tranverter and various other bits and bobs! I am the trustee for 10 bay area repeaters that I look after in my spare time.

What are your previous QTH's? In the UK, lived about 35 miles north of London (IO91) and moved to the States (CM97) in 1999 and been in the Bay area since.

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

I am the Director of Communications Technologies at Stanford Hospital in Palo Alto. Although I spent most of my time at the facility in Newark!

Married? Kids? Grandkids?

Married to Serina (K6SYL), one son, Edward just turned 21 (KJ6NNZ) neither are that active.

How many DXCC entities have you worked? 165 worked, 140 confirmed. Which isn't that many I know but I really just started chasing them in Jan 2016. Up until then I had more countries worked on 144MHz from years of DXing, mostly using High Speed CW / meteor scatter (long before computers made it into the shacks).

I have quite a bit of wall paper for my efforts on 144MHz and 70Mhz all back in the 1980's!

I received my ARRL DX Century award in March of this year and in May managed my last Zone for WAZ. I should see the certificate in August if all goes well!. Up next is Triple Play with 18 states on CW remaining.

What's your favorite contest? CQP of course. From 2013-2016 I led the county expedition to TUOL. I will be taking a break from the county expeditions this year and just operating from ALAM.

I also enjoy the NAQP contests and the other state parties.

Any tips for contesters?

Please renew your dues!

Since taking over the JUG in 2011 I am really grateful to those that have contributed to its success. It would be great if we could get a few more regulars to join in and really make the JUG something we can all be proud of.

What would you like to see changed in NCCC?

We need to do more to attract new members and young new members at that. We need to do a better job of helping newcomers join the ranks of the NCCC. I realize this is a challenge for all clubs these days but were have to figure out what the secret sauce is!

I manage the NCCC Facebook and Twitter accounts and if would also be helpful to have some additional assistance in this area. Like them or hate them there now part of everyday life!

Any other hobbies besides ham radio?

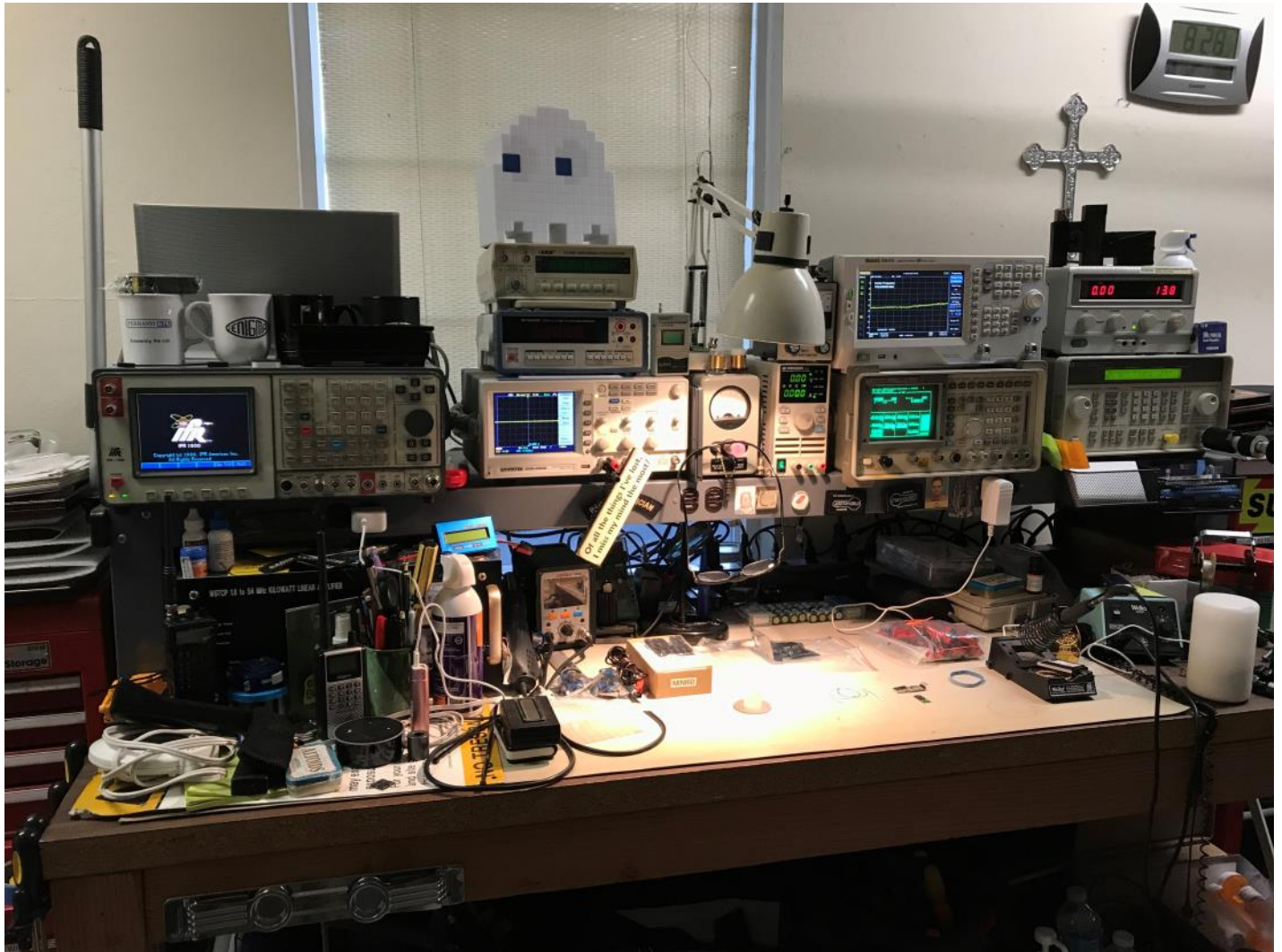
Yes many..... Maybe too many!

Wine tasting (AKA drinking) Electronics, Hiking (sometimes including Summits on the Air) and Traveling but not all necessary at the same time although I have combined them on more than one occasion!

I also have a piano and guitar although my musical skills match my contesting ability!



W6TCP—Shack



W6TCP—Workbench





TUBE OF THE MONTH

Visit the museum at N6JV.com

Norm N6JV

Das Kurzwellen-Senderöhre, RS282

Many of the tubes that were made in the United States had common construction practices. If you needed an audio tube you might take a commercial transmitting tube of the same wattage and change the grid for audio. In Europe and in particular Germany, tubes or röhre had a different evolution. German Engineers who were building equipment for the military were interested in performance in military applications.

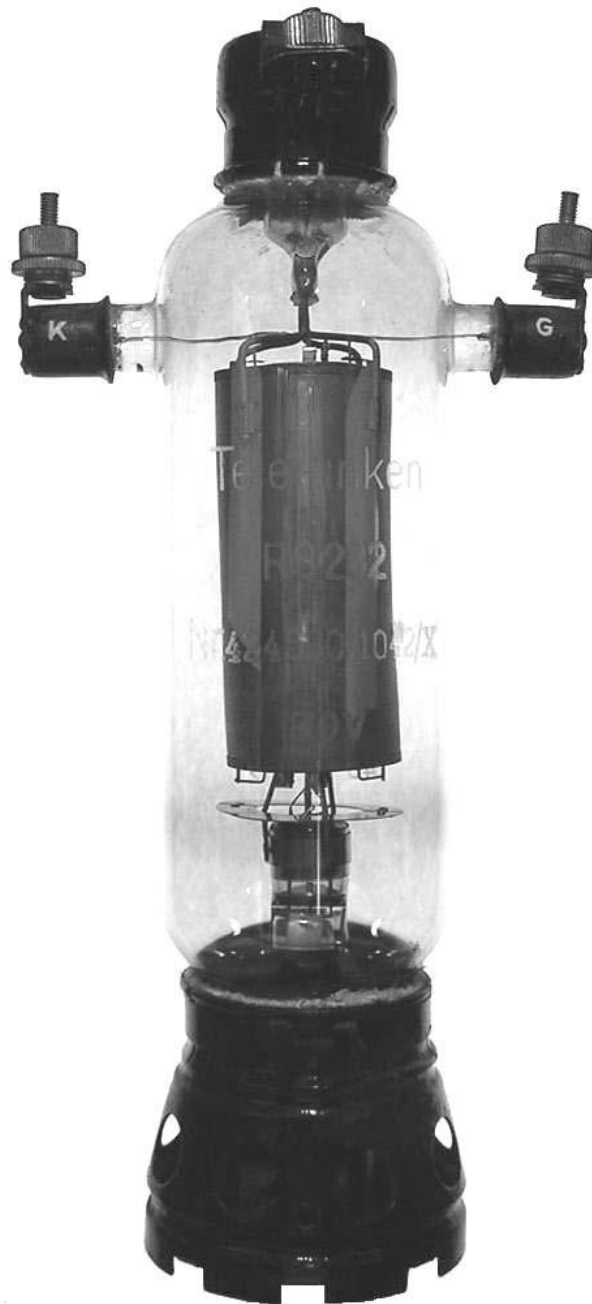
The RS282 made by Telefunken is a WWII classic. This 100-watt transmitting tube is known as the kreuz or cross tube has an aluminum base, sockets instead of pins, asbestos insulation on the base and anode and "K" for Kathode and "G" for grid on the arms. A must for tube collectors, the RS282 has doubled its sale value in the last few years. This example is marked 1942 for the "Wehrmacht" and has the classic swastika and eagle. For its size it isn't very powerful but the short-wave transmitting tube, RS282 is one of the best-known military tubes of the war.

More photos at <http://n6jv.com>.

TUBE OF THE MONTH

Visit the museum at N6JV.com

Norm N6JV



RS282

NCCC Life Members!

Welcome to our new NCCC Life members:

Rick N7TR
Mike N7MH
Bob N6TV

The NCCC Life member program was introduced last year for a flat fee of \$250. If you are interested in becoming an NCCC Life member, please contact Ian W6TCP at w6tcpian@gmail.com

CQP T-Shirts

We have a small number of T-Shirts left for anyone that wants one. They are \$15 each, available on a first come first served basis.

Available sizes:

2XL
XL
M

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 Ian, W6TCP at w6tcpian@gmail.com Don't worry about the formatting, we can take care of that if necessary !

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.



Contest Calendar— July page 1

RAC Canada Day Contest	0000Z-2359Z, Jul 1
FISTS Summer Slow Speed Sprint	0000Z-0400Z, Jul 1
Venezuelan Ind. Day Contest	0000Z-2359Z, Jul 1
DL-DX RTTY Contest	1100Z, Jul 1 to 1059Z, Jul 2
Marconi Memorial HF Contest	1400Z, Jul 1 to 1400Z, Jul 2
Original QRP Contest	1500Z, Jul 1 to 1500Z, Jul 2
PODXS 070 Club 40m Firecracker Sprint	2000Z, Jul 1 to 2000Z, Jul 2
10-10 Int. Spirit of 76 QSO Party	0001Z, Jul 3 to 2400Z, Jul 9
IQRP Quarterly Marathon	0800Z, Jul 3 to 2000Z, Jul 9
RSGB 80m Club Championship, CW	1900Z-2030Z, Jul 3
ARS Spartan Sprint	0100Z-0300Z, Jul 4
Phone Fray	0230Z-0300Z, Jul 5
CWops Mini-CWT Test	1300Z-1400Z, Jul 5 and 1900Z-2000Z, Jul 5 and 0300Z-0400Z, Jul 6
NRAU 10m Activity Contest	1700Z-1800Z, Jul 6 (CW) and 1800Z-1900Z, Jul 6 (SSB) and 1900Z-2000Z, Jul 6 (FM) and 2000Z-2100Z, Jul 6 (Dig)
QRP Fox Hunt	0100Z-0230Z, Jul 7
NCCC RTTY Sprint	0145Z-0215Z, Jul 7
NCCC Sprint	0230Z-0300Z, Jul 7
FISTS Summer Unlimited Sprint	0000Z-0400Z, Jul 8
SKCC Weekend Sprintathon	1200Z, Jul 8 to 2400Z, Jul 9
IARU HF World Championship	1200Z, Jul 8 to 1200Z, Jul 9
CQC Great Colorado Gold Rush	2000Z-2159Z, Jul 9



Contest Calendar— July page 2

QRP ARCI Summer Homebrew Sprint	2000Z-2359Z, Jul 9
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Jul 10
Phone Fray	0230Z-0300Z, Jul 12
CWops Mini-CWT Test	1300Z-1400Z, Jul 12 and 1900Z-2000Z, Jul 12 and 0300Z-0400Z, Jul 13
RSGB 80m Club Championship, SSB	1900Z-2030Z, Jul 12
QRP Fox Hunt	0100Z-0230Z, Jul 14
NCCC RTTY Sprint	0145Z-0215Z, Jul 14
NCCC Sprint	0230Z-0300Z, Jul 14
Russian Radio Team Championship	0700Z-1459Z, Jul 15
Trans-Tasman Low-Bands Challenge	0800Z-1400Z, Jul 15
Feld Hell Sprint	1200Z-1359Z, Jul 15
DMC RTTY Contest	1200Z, Jul 15 to 1200Z, Jul 16
North American QSO Party, RTTY	1800Z, Jul 15 to 0559Z, Jul 16
CQ Worldwide VHF Contest	1800Z, Jul 15 to 2100Z, Jul 16
RSGB Low Power Contest	0900Z-1200Z and 1300Z-1600Z, Jul 16
Run for the Bacon QRP Contest	0100Z-0300Z, Jul 17
Phone Fray	0230Z-0300Z, Jul 19
CWops Mini-CWT Test	1300Z-1400Z, Jul 19 and 1900Z-2000Z, Jul 19 and 0300Z-0400Z, Jul 20
NAQCC CW Sprint	0030Z-0230Z, Jul 20
QRP Fox Hunt	0100Z-0230Z, Jul 21



Contest Calendar— July page 3

NCCC RTTY Sprint	0145Z-0215Z, Jul 21
NCCC Sprint	0230Z-0300Z, Jul 21
Scottish DX Contest	1200Z, Jul 22 to 1159Z, Jul 23
SA Sprint Contest	2000Z-2400Z, Jul 22
SKCC Sprint	0000Z-0200Z, Jul 26
Phone Fray	0230Z-0300Z, Jul 26
CWops Mini-CWT Test	1300Z-1400Z, Jul 26 and 1900Z-2000Z, Jul 26 and 0300Z-0400Z, Jul 27
RSGB 80m Club Championship, Data	1900Z-2030Z, Jul 27
QRP Fox Hunt	0100Z-0230Z, Jul 28
NCCC RTTY Sprint	0145Z-0215Z, Jul 28
NCCC Sprint	0230Z-0300Z, Jul 28
Feld Hell Sprint	0000Z-2359Z, Jul 29
RSGB IOTA Contest	1200Z, Jul 29 to 1200Z, Jul 30
ARS Flight of the Bumblebees	1700Z-2100Z, Jul 30

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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 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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New Store!