



Publication of the  
Northern California  
Contest Club



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NCCC Net  
Thursday 8 PM  
3610+/-

*Guests are always welcome at the NCCC! Please join us.*

### Next NCCC Meeting

**Monday, August 9, 2010**

### "2010 World Radiosport Team Championship (WRTC)"

(WRTC Panel: K3EST, K6XX, N6TV, N6XI, W2SC, W6OAT)

**Date:** Monday, Aug 9, 2010

**Time:** 6:00pm schmooz and dinner, 7:00pm program

**Location:** Cattlemens; 2882 Kitty Hawk Road; Livermore, CA 94551 (925) 447-1224

**Directions:** <http://www.cattlemensrestaurants.com/liv.htm>

Dinner selections for this month's meeting are:

1. Teriyaki Chicken
2. Broiled Top Sirloin Steak
3. Grilled King Salmon
4. Marinara Cheese Ravioli

All selections include a Baked Potato, Seasonal Vegetables, All-You-Can-Eat Salad, Sourdough Bread, Ranch Style Beans, Soda, Coffee or Tea. The price will be \$25 including tax and tip.

Payment can be via the club's PayPal account ([paypal@nccc.cc](mailto:paypal@nccc.cc)) or at the door.

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### FB's Message

By Jack Brindle, W6FB

Summer is the time for taking it easy, making improvements to the contest station, adding antennas, taking vacations and doing things with the family.

It is the time to do pretty much anything but contest. After all, contest season runs from September to April, with only CQ WPX CW breaking the major contest timeframe. Well, this is what conventional wisdom says anyway. For most of us this is the way things happen every year.

Every four years elite athletes, from each country, come together to compete in

their respective sports. For cold-weather sports the athletes gather in a wintry area to push their skills to the limit in an effort to prove they are the best.

Likewise, two years later competitions are held for warm-weather sports. These competitions, the Olympics, are followed world-wide by millions of people who dream they could be there to either watch or participate. Not all sports are included, however. Rather important sports, such as baseball are left out these days. In many, if not most, cases, the governing bodies for these sports hold their own world championships. Such is the case for baseball, and for the competitions in which we participate, RadioSport.

The recently concluded World RadioSport Team Competition brought together 48 teams for countries around the world to determine the world championship for our hobby. As one of the elite contest clubs on the planet, NCCC was privileged to send six members, four as competitors and two as referees.

As in the Olympics, competitions are held in the years preceding each Olympics to determine just who should participate in the finals. In the case of RadioSport, results from major contests of the past four years are used to determine the team leaders for each area.

The 48 two-person teams, along with referees and other RadioSport Officials, converged upon Moscow, Russia to hold the championship in conjunction with this year's IARU contest. Included in the teams were K6XX, N6XI, W2SC and N6TV. The referee corps included W6OAT and K3EST.

The contesters and referees distinguished themselves very well, proving exactly why they were included in the "best of the best."

Since returning from the competition, the participants have related some of their stories, through emails, postings, and even in this month's Jug. All will come together at the August NCCC meeting in Livermore to give us more details, show us the pictures they took, and to clue us in on the great memories that were created for everyone associated with the event. This is a meeting you really won't want to miss.

By all accounts this year's WRTC was an overwhelming success, providing the most level playing field of any WRTC competition held to date. We at the NCCC extend our utmost congratulations to the Russian Organizing Committee for the outstanding job they did in assembling the concepts for the competition, putting a super plan together, and executing that plan to great success. Well done, guys!

It was announced in the closing ceremony that applications from groups in New England and Bulgaria have been received to host the next WRTC, to be held in 2014. The Russian Organizing Committee has set the bar for these competitions very high. It will take tremendous effort on the part of the next host group to equal the success of this year's effort.

It will also take tremendous efforts on the parts of contesters to achieve the privilege of operating in that competition. The time to start those efforts is now, during the "summer doldrums."

K6XX, N6XI, N6TV and W2SC have shown us what it takes to get there, and from all accounts, each will be working very hard to go back. So let's all get started on improving our stations, erecting better antennas, and sharpening our skills so that we will have even more NCCers participating in four years!

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## **VP/CC**

By Chris Tate, N6WM

Some of you have seen our Website, some heard the announcement during the Joint MLDXCC/NCCC meeting, and now its JUG time!

We are going to hold a special event for the two weeks prior to CQP, and need your help to make it happen!

During this time period (0000 UTC September 18 until 2359 UTC, October 1, 2010) which immediately precedes the California QSO Party, you, our fine NCCC membership and club stations are encouraged to get "on the air".

To facilitate easier identification during this event, our NCCC stations have been encouraged to add "/40" to your call. (We have checked and cleared this with the ARRL OOC, so it's all legit!)

To further commemorate this event and to spice things up a bit, NCCC is offering an attractive certificate to anyone who works at least 40 NCCC member stations during this 40th Birthday Party event.

Your NCCC leadership is working hard to make sure the world knows about this in advance, with publication in QST,

CQ, and transmittals to major clubs and amateur organizations worldwide! This should prove to be a fun way to work lots of stations and give them a chance to earn an attractive certificate for working 40 of us!

More information about this is available on our club website at this link so check it out at: <http://nccc.cc/40th.html>

Also, here's a note on the 1 X 1's. I would encourage larger, capable, stations (should you want), to obtain 1 X 1 calls that will count for caller award credit as well.

Also if you normally provision a 1 X 1 for your county expedition, you may want to extend the timeframe around it to cover part of the two-week event preceding the contest, as well. This is easy to do, with your favorite VEC, and is usually done quite quickly.

The /40 should make your regular call identifiable on the air, so let's not all flood the VEC with requests. For this event, I'd like to request we try and keep the 1 X 1's limited to high-volume producing stations, or for upcoming county expeditions. This is simply a recommendation from your VP/CC, YMMV.

If you do provision a 1 X 1 during the event period, make sure you let K6MM know so we can put it on our published list of eligible stations to work for the award.

So, we hope as many of you as possible get on the air for this exciting special event, call CQ, enjoy, and have fun! Happy 40th NCCC!

## **WRTC-2010**

By:Bob Wolbert, K6XX

It is the end of July, more than two weeks since WRTC-2010 concluded, yet I still find myself back in Russia every time I drift off to sleep. This competition was definitely a momentous event for me.

### **Overview**

WRTC, or “World RadioSport Team Championship” is the Olympics of amateur radio contesting. For historic reasons related to its formation as part of the Goodwill Games of 1990, two-operator teams compete against each other, instead of a more natural competition between single operators. WRTC-90 was a Thursday afternoon special event, not run in conjunction with any contest.

With the demise of the Goodwill Games, WRTC was widely considered a singular occurrence. A large east coast contest club toyed with the idea of sponsoring another, but they could not pull off such a huge effort. Instead, NCCC accepted the challenge.

We held the first “modern’ style WRTC in 1996, using 52 stations owned by hams located mostly in the southern bay area. The event was combined with a regularly scheduled contest, the low activity, midsummer IARU “HF World Championships.”

WRTC-96 was such a huge success that the Slovenian Contest Club committed to sponsor WRTC-2000, making this announcement before the closing ceremony in Northern California.

Bled WRTC of 2000 also was successful, and Finnish hams announced

plans to hold another WRTC only two years later—to avoid the sunspot doldrums expected in 2004.

Brazilian amateurs likewise offered their sponsorship of WRTC-2006. There, the Russians received approval from the WRTC site selection committee to hold WRTC-2010.

### **Qualifying**

Every WRTC sponsor sets the rules for their competition and for competitor selection. The first two WRTCs were on a very short schedule, so teams were mostly invited by personal recommendation or by the nomination by national societies.

By WRTC-2006, a formal qualifying system was in place, based on points earned in major contests. The Russians continued this technique, shuffling the valuation of some contests a bit.

Qualifying contests actually started *before* the rules announced which contests would count. This worked out to my benefit, as I accurately anticipated the important ones and put in full efforts.

For example, this meant a big effort in the Russian DX contest, which I strongly dislike due to its difficult point structure and draconian penalty system. When the list of contests was first posted, I led the region they called North America 4 (the West Coast).

Two teams would be invited from NA4. Month after month scores came in and Mitch, K7RL, and I traded first and second spots. Later, he firmly took the lead. But no worry; second place also earns a seat.

Then came Mary Jane. N6MJ got serious about WRTC-2010 relatively late in the game, but then went at it full throttle (you might think “mary jane” was smokin’, but I don’t dare say such a thing). By the last qualifying event, he was the overall leader. K7RL was second, and I was out of the running in third place.

### **The Invitation**

In October 2009, the competitors formally applied and were approved, teams were formed, and the preparations began.

The Russians announced significant departure from normal contest rules, and even from previous WRTC rules. The good change was that all of the stations would have identical antennas, towers, feedline lengths, and power systems. The bad news was that they allowed the infamous “octopus,” a device that allows multiple transmitters to operate, yet guarantees only a single transmitted signal is on the air at any instant.

Octopi have been illegal in all major contests since the 1970s, and are the reason for the 10-minute band restriction for multi-single stations. What were these guys up to?

Whatever it was, it no longer was my problem. However, while casually discussing these implications, Steve, K6AW, told me that “a lot can happen in a year.” Steve was right.

On May 3<sup>rd</sup>, while I was preparing a batch of QSL cards for the JARL bureau, W6OAT telephoned. Rusty explained that RA3AUU was searching for me. Evidently K7RL had to pull out, and as first runner up, the seat was now mine.

### **Logistics—Lots of Logistics**

This is a big deal. Is it even possible? The competition is only two months away. My passport expired and Russian visas and Russian radio licenses take ages. Then there is hardware. I’ve never even seen an octopus, much less know how to build such a device. There was chatter about a HF triplexer that would allow simultaneous sharing of a triband yagi.

I command a vast reservoir of ignorance about that kind of thing, too. Worse, my parents had booked my extended family on an Alaskan cruise the same week. I can’t very well get out of that and remain alive. (I’m not sure I am forgiven).

Then, of course, I need a teammate. It is customary for US competitors to choose someone from the other side of the country (this was a formal requirement for previous events). I don’t really know anyone outside of NCCC... hummm.... who has beaten me recently?

This month’s QST listed SS CW results. Let’ see... \$%^&\*, that N6XI squeaked by me. How’d I let that happen? Well, I’ll get back at him! “Hello Rick? this is Bob, K6XX. Do me a favor, please, and sit down. I have something important to discuss with you.”

The passport took an annoyingly long time. I followed the procedures to get an urgent passport, taking the first available appointment—ten days away. (For future reference: forsake the appointment and merely show up, like several in the passport agency line alongside me.)

The WRTC committee arranged a special sportsman’s visa, actually

classified as a “Humanitarian” visa. A formal application is still required, but the process is streamlined. Rather than wasting another day in San Francisco, I hired a professional visa service who promised delivery in two weeks. They delivered.

A little thought revealed that a two-station octopus is a simple implementation, requiring only two NOR gates. Fortunately, QST ran an article about a triplexer for a tribander earlier this year. The article featured a photograph of NCCCer, Phil, W6TQG.

An e-mail to Phil got me an introduction to the author, K6KV, who generously turned coil forms on his lathe for me. These beautiful coils replaced the messy inductors I hand-wound (although the measured performance of both sets was identical).

Rick designed both the audio switching system that enabled listening to the other’s receiver, and handled the mandated audio recording of all incoming and outgoing communications. Now that all this junk is built, how do we use it? The next contest is WPX CW, followed by the All-Asian CW, and just before we depart, Field Day. Rick and I take advantage of all three contests to learn the equipment and, more importantly, determine how to operate as a team following “Russian rules.”



*How much gear can you stuff inside a K3?*

The final pre-contest chore: packing a competitive M/2 station into suitcases without contributing too generously to airline profits. Fortunately, Rick flies business class and is allowed two 70-pound suitcases plus twice as much carry-on luggage as us unwashed in the back of the plane. Together with my single 50-pounder and some perseverance, we got it done. Joining us on the flight is Rusty, W6OAT and Bob, N6TV.

### **Arrival**

On arrival to Moscow’s DME airport, Victor, RK3BX, meets us inside the secured area and attempts to rush us through customs where we declare our transmitters. The guard had been briefed about us, however, he did not have the promised operator’s license. Further, he required our declaration papers in identical duplicate, without any corrections or incorrectly formed letters. In ink!



Unfortunately, the forms we received on the airplane bore a different date than the ones he wanted, so we ended up recopying them. And, yet again, when we discovered that Question #3 should be answered YES. And, again when... you get the picture.

Finally we are out in the sunshine—darkness doesn't fall until 11PM this time of year—and board a van for the short drive to the hotel complex.



*K6XX & N6XI Arrive at the Hotel*

It is Tuesday evening, and a handful of participants have arrived, including several that I recognize from WRTC's in 1996 or 2000.

We spend the next day adjusting to the 11-hour time difference; this process is difficult because nights are so short. The first of two power supplies arranged by Mike, WA6O, is delivered Wednesday morning. Wednesday evening, a demonstration station is built using the same model antennas, tower, tent, tables, chairs, generator that we will use on Saturday. I ask permission to operate, but am told they had no AC power and the generator is out of gas. They promise it will be ready Thursday morning. I ask for it by 03Z to attempt the West Coast opening, but that will not be possible.



*Morning Stroll in Moscovskaya (MO)Oblast, left to right, Bob(K6XX), Rick (N6XI) and Rusty (W6OAT)*

Thursday morning the station remains unpowered, although a long extension cord has appeared, plugged into a dead outlet in the middle of the complex.

Knowing better than to ask permission, I search for a hot outlet within reach. This search ends inside the huge white tent that would later hold the opening and closing ceremonies. The workers constructing the stage paid no attention to the guy who appeared to know what he was doing.

Rick pushes the plug beneath the tent wall—now we have power. A K3, power supply, paddle, and headphones are rushed over, and we have our first QSO as R3/K6XX at 0659Z—way too late to work the deserving on the correct coast.

For more than three hours, Rick and I take turns operating the demo station, running well over two Qs per minute while logging on paper. Operating from Europe is very interesting! Eventually, we get our fill and let others take over.

### **Pre-Competition**

Friday was the opening ceremony, the question and answer period, and the station location drawing. We receive color-coded shirts: blue for competitors, white for organizers, red for referees and

judges (colors of the Russian flag), and orange for the site volunteers.

Reminiscent of the Olympics, the opening ceremony begins with the competitors marching into the arena (tent), country by country. Speeches, music, and dancing girls followed.



*N6XI, K3JO, K6XX, N2GA Before Opening Ceremony*

That afternoon we are stuffed into a hot conference room where we learn new rules are being implemented. For one, we had to load a “virus” onto our logging PC, ostensibly, to automatically report our scores to headquarters every five minutes.

An even less popular rule was that our scores would be reduced if the station we work miscopies any part of our exchange. We are disingenuously told “Because we always do it that way” or “How do we know you didn’t incorrectly send the exchange”.

Straightforward counterarguments (remember, they required a recording of all transmissions) are ignored. I won’t dwell further on this here. Perhaps the worst ruling was that stations could respond to callers speaking Russian. This potentially would upset the competition by providing a significant “home field advantage”.



*Awaiting Station Assignment*

We are told to wake at 4:30 AM the next morning, get breakfast, pick up our food rations, and board a bus for the sites at 6AM—even though the contest starts at 4PM local time.

No transportation would be provided for those wanting to nap at the hotel before the start. The alarm clock didn’t have to ring as the night passes slowly and almost sleeplessly. Breakfast is quick. The bags of lunches/breakfast are stacked on large racks. We grab two lunches and a breakfast (what about dinner?). There probably is some difference between the meals, but it isn’t obvious, and we no longer care about such trivial details.



*The superb support crew at site 302: RD3APN, RV9LM, RNOSA, UAOSA*

I did not know it, but the worst is over. We arrive at the site and meet our enthusiastic Asiatic Russian ground crew. The “helper” turned out to be four, each anxious to make our effort successful. They are Alex, RV9LM;



Ilya, RD3APN; Val, RN0SA; and Serge, UA0SE; supervised by Igor, RZ0SR.

The station assembles quickly, and we tune the 80m antenna for better performance lower in the band. The 40m inverted vee works fine as erected. The C3-clone turns effortlessly and its rotator is already calibrated to true north. While the plastic tables were shaky, we expected that and dig them in slightly for improved stability. Fortunately, our K3s and laptops do not tax table strength.



Rick and I, satisfied with the station, hitch a ride back to the hotel for a short air-conditioned respite from the heat and humidity inside the tent. Returning with an hour or so before show time, we made some final checks and Rick works a few stations. I wander around the site and try communicating with our crew.

Finally it is 3:45 PM local/1145Z, time to receive our callsign from our referee, Boris, E73Y. We are delighted with **R31A**. The next minutes are spent programming voice keyer and Morse messages. Then we sit, slightly dazed, awaiting what lies ahead once the clock hits 12:00:00Z.



*E73Y, N6XI, K6XX = R31A*

Before leaving California, we studied logs from the test stations built equivalently on nearby sites in 2009. The logs indicated that we should aim for a combined rate of 100/hour, averaged over the 24-hour contest, or 2400 QSOs. My stretch goal—what I guessed the winners would attain—was 2700, maybe as many as 3000 QSOs. Was I wrong!

### Competition



*Photo Proof that I was actually there!  
But I remember almost nothing...*

Rarely am I so happy to be so wrong. WRTC-2010 is a phenomenal rate-fest. A CQ or two generates a pileup—a manageable pileup, with just the right number of callers most of the time. Even with low power and low antennas, we blast past our goals and generate 3250 QSOs. This means that we never think

about strategy... why change *anything* when things are going so very well?

Looking back, we lacked fone QSOs and should have been more persistent in grabbing mults, but given the same circumstances, I'd play it nearly the same way again.

Rick and I had practiced the three logical operating methods: Dual CQing; One Run, One S&P; and Both S&P. When the rate was miserable, such as in All-Asian, we alternated between Dual CQ and Both S&P. Dual CQs are a prime recipe for winning recognition as a lid, however, as the timing requirements are exceedingly tight. If at least one band offered good activity, the One Run, One S&P technique generated the best rate.

During WRTC, we used this style throughout, except a portion of the last hour where we attempted dual CQing. Both S&P was never justified.



*Bridge connects the two tables and supports cabling and the controller box (auto antenna selection with override, BPF drive, keyers, octopus). Power monitor, auto tuner, and rotator are beneath.*

Regardless of which technique we employed, the octopus lockout made our operations sound clumsy. Yes, blame the octopus... I'm sticking to that story. Believe me, it was quite frustrating at times!

Since I have photos and an audio recording, I know I really participated. But besides the lightning storm and a few other details, mostly memorable because I recall others talking about them afterward, the contest is a blur.

### **Aftermath**

The clock again struck 1200Z, and the event was over. Almost over: we have 30 minutes to check our log and submit it along with the audio file. Plus we had been asked to help the ground crew dismantle the antennas (an insurance company's nightmare: contesters lowering a tower after being awake for 30+ hours!).

I hurriedly look through the few notes written during the contest, make no changes to the log, generate Cabrillo, glance through a few screens' worth, then write it on a thumb drive and present it to Boris.

Unfortunately, I miss one QSO that is somehow logged on 17m. Rick had already copied the 24 hours of stereo audio onto the same thumb drive. Now, the contest is truly over for us. We go outside to assist with tear down, but found that the tower is already at a 60 degree angle and the C3 clone is rapidly losing elements. These guys don't waste time.

We shut down the computers and begin repacking gear. We are expected at our pick-up point by 5:30 PM, and barely make it—but no bus is waiting. Fortunately, Ilya offers to drive us the few kilometers back to the hotel and we gratefully accept.

Back at the hotel, we dump the gear into the rooms and then join the growing crowd in the hotel lobby. Everyone

there—except for us new arrivals—knows the preliminary rankings. While the “virus” reporting system had failed, the backup system of hourly text messages from each referee succeeded. Unfortunately, our hugely-better-than-expected score only earns us 26<sup>th</sup> place....

The closing ceremony is the following evening and the Russians are noticeably more relaxed. Was this because their job is now virtually over? Or, perhaps it's because a Russian team is ahead in the preliminary score?

Dinner is fancy, although some foods are difficult to identify. There is plenty of drink, including some high-quality vodka. Singing, dancing, and acknowledgements follow. Eventually the top three teams are announced. I never see the winners wearing their medals: they are mobbed by the crowd.

The final ranking of all stations were distributed: we moved up a notch to 25<sup>th</sup> place—one more QSO and we would have risen to 24<sup>th</sup> place; the competition was that close. (Arrrgh! We lost credit for the Q incorrectly logged on 17m!).

Finally came three rounds of fireworks, launched from right beside the tent. WRTC-2010 was over. Normally, I would not be enthralled by a 25<sup>th</sup> place finish. Somehow I don't feel ashamed about this performance in WRTC-2010.

These other guys are good; really good. There is no shame finishing in the middle of the pack when the pack is so skilled. Given the lightning, heat, and invasive dust out in the Moscow fields, we are also proud that none of our equipment suffered any failures.

Many have commended the near-absolute equality of the stations. I fully concur, having been involved in a similar attempt here in 1996, where such matching was not possible.

While some creature comforts were lacking, equality of antenna hardware and sites is overwhelmingly more important for such a competition. Hopefully the next WRTC sponsor can achieve similar station equality. Speaking of which, rumor has it that there are two contenders: LZ and W1.

Unlike in previous competitions, the next organizer has not yet been decided and so was not announced at the closing ceremony.

Credit is also due the Russians for their publicity effort and awards program. These definitely increased participation and provided us the excellent rates we enjoyed so much.

While the Russian-rules-with-octopus was an interesting experiment, I prefer overhauling the format into a more standard single-operator competition. Eliminate the team aspect completely. That's the way we normally play, so why not do the same for a championship?

For how much longer will I see visions of Russia each time my eyes close? I'm not yet ready to let go....

Thanks to N6TV, E73Y, and RA6LBS for the quality photos. I took the others.

Attend the August NCCC meeting to hear the rest of the story, including stuff that shouldn't be posted to the web. C U there.

**1 2 S T O R E B U Y I N G P O W E R**



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