



# Solid Copy

The International CWops Newsletter

August

2010

Issue No. 7



## CWops Events

On-Air Monthly CWT

Next one: 11 August 2010

Start time:

1100Z Asia/VK/ZL region

1900Z Europe Region

0300Z (12 August) NA region

1-hour each region

Exchange name/number (members)

Exchange name/SPC (non-members)

## CWops “neighborhood”

Look for CWops on 1.818, 3.528, 7.028, 10.118,  
14.028, 18.078, 21.028, 24.908, 28.028

## CWops “Happy Hour”

1900 local, every day, on or near the “neighborhood”  
frequencies – just call “CQ” or answer someone else.

## CWops Officers and Director

### Officers

President: Pete Chamalian, [W1RM](mailto:W1RM)

Vice President: Art Suberbelle, [KZ5D](mailto:KZ5D)

Secretary: Jim Talens, [N3JT](mailto:N3JT)

Treasurer: Harry Wilson, [W1AAX](mailto:W1AAX)

### Directors:

Bert Donn, [G3XSN](mailto:G3XSN)

Shin Onisawa, [JA1NUT](mailto:JA1NUT)

Vidi La Grange, [ZS1EL](mailto:ZS1EL)

**Webmaster:** John Miller, [K6MM](mailto:K6MM)

**Publisher:** Rob Brownstein, [K6RB](mailto:K6RB)

## From the president...



### Education and Outreach

In line with our goal of promoting CWoperating, we are looking for ideas and suggestions from you. We have already made some great strides in that direction – the ARRL

Foundation grant being one. Others are described in issues of Solid Copy.

One idea is to sponsor some awards/plaques in major contests, both domestic and overseas. Another is to do this but to create a separate category for young operators (under the age of, say, 21) or rookies (three years or less contesting experience).

We want your thoughts and feedback on this before proceeding. Post your ideas on the reflector so we can get a discussion going, and copy me at [w1rm@arrl.net](mailto:w1rm@arrl.net) if you would. Please be specific – how would the idea be implemented? If support for a contest award, which one(s) and what would the standards be? If the contest sponsor doesn't wish to implement the award, how should it be handled?

We'll gather all the comments and use them to formulate our plans.

### Sponsoring New Members

When you contact a prospective member to see if they are interested in becoming a CWops member, please mention the CWT and encourage them to get on. It will be great exposure for them to members and to help them gain additional sponsors. Give them this URL:

<http://www.cwops.org/onair.html> for specifics on CWT.

### Events

If you are planning on joining us at the West Coast CW Dinner and haven't made your reservations yet, now's the time! See the "Members Only" section on the web site for details and a link to the sign up page.

Watch for details on the October 2 event in Plymouth, MA as well. We were just up there this past weekend on a whale watch and it's great! In October, with the typical New England foliage in "full bloom", Plymouth will be just glorious so plan on making a few more stops to take in the sights. See <http://cwops.org/members/index.html> for details.

### IARU Radiosport and WRTC

Well, from all reports, the WRTC was quite an event. In this and subsequent issues, we will have some reports, photos and comments from our members who participated. Congratulations to all!

On the home front, I decided to go into IARU Radiosport full bore in a low power, CW-only, entry. Since it's a 24-hour event, it was manageable. My days of 40+ hours in a contest are long past, as are "all night"ers. This was going to be an "iron pants" effort. In the end, N1MM logger showed that I was off the air for 3 minutes total! No stops except for bio breaks – my dear Bobbie (WB1ADL) even brought me meals so I could eat while operating.

Highlights include working a bunch of Europeans on 10, E21EIC on 15 at 10 AM, several JA stations on 15. Twenty-four hours of contacts on 20 (the band never shut down) and a new country on 160 – PR1T.

In the end, 1502 contacts, 103 zones and 113 HQ stations for a claimed score of 1,157,760! Whew!

Have a great August and see you in the CWT on August 11.

*Pete, W1RM*

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### From the VP/Activities Chairman...



Summer is quickly slipping away. But before it does, there will be several interesting operating opportunities for CWops.

The first one is the popular North American QSO Party on Saturday, August 7. This event offers the chance for CWops members to catch a good number of fellow members and run up their totals of ACA and CMA contacts.

Next up is our mini-CWT on Wednesday, August 11. It's apparent that we are continuing to gain participation in these events. Last month, during the 0300 session, there were stations occupying almost every speck of spectrum between 018 and 028 on 20 and 40. One suggestion, however, is that if you do participate; please send in your score. It's so easy to do, thanks to the cooperation of Bruce, WA7BNM. Just go to his 3830 score-reporting site and fill in the blanks. ([www.hornucopia.com/3830score/](http://www.hornucopia.com/3830score/)).

Then, jump into the Worked All Europe CW contest on the next weekend, August 14 and 15. You'll find a lot of European activity on all the bands that weekend. And if you like short bursts of activity, try the Thursday night 30 minute NS sponsored by NCCC.

Details for each of these events are available at the click of a mouse on the WA7BNM Contest Calendar:

[www.hornucopia.com/contestcal/](http://www.hornucopia.com/contestcal/). Bruce does a fantastic job of making the info available for all operating events.

Last month, I wrote about the new CWops Sked Page. Have you tried it yet? Here is the address: <http://www.obriensweb.com/sked2/> Take a minute right now to access this page. As I am writing this column I noticed that this page hasn't had much use by our members. This is perplexing because it fulfills the need for easy access of member-to-member QSOS or contacts with perspective new members. Often we've heard the complaint that a station just can't find another member to contact. Use this site and you'll not have that problem.

Are you tracking your progress for any of our club-sponsored awards? If you haven't taken the time to read about these yet, click on our website ([www.cwops.org/awards.html](http://www.cwops.org/awards.html)) A good number of the members are enjoying the fun to see how well they can do. In fact, when we set out to establish these, achievement levels were set that we thought would be a yearlong challenge. In fact, many members have told me that they need higher achievement levels. So, effective now, we have added the following levels to the annual CWops ACA. –This award is based on one contact per member per calendar year. Contacts can be made on any amateur band. In addition to our 2 initial levels of ACA-100 and ACA-250, we're adding ACA-400, ACA-600, and ACA-750. The other cumulative award is the CWops CMA that is earned by contacting members on each amateur band and it is continued in perpetuity. We'll add two more levels at this time and look forward to having some members push the upper limits. CMA is

awarded in increments of 250 contacts, so the additional levels will be CMA-1250 and CMA-1500. Our Webmaster, John, K6MM, is working on a method for members will to be able to print their own certificates directly from our website. Details coming soon.

I received a report from Bill, N5RR, that he has a skimmer set up to pull out only CWops members. He reports that his monitor from July 17 to July 28 listed 388 CWopx members. According to Bill, "Wish I could work them all, but got to sleep sometime. The Skimmer never sleeps." So it's apparent that there are plenty of members out there available to be contacted.

Your Activity Team is constantly looking for ways to create additional operating opportunities. Please let us know what you'd like to see. One recent email suggested we schedule some events on the weekends, because many of us are still employed and time-limited for the mid-week mini-CWTs. What are your thoughts about this? We are working on s maxi-CWT that will run longer, perhaps 12 or 24 hours. What length do you prefer? What other weekend related events would you find interesting?

This is your club. We want your input. . If you've got a suggestion, email me directly, or post it on the CWops reflector. See you on the air in August!

Beginning this month, we're adding a second column for the CMA-Cumulative Membership Award. Reports listed reflect all information received through July 29, 2010.

	ACA	CMA
W1RM	372	883
W4PM	314	736
N5RR	281	522
W5SG	273	519
KZ5D	248	644
W1UJ	247	527
W6KY	246	423
K6RB	243	503
K4AB	192	282
EA1WX	180	316
KR3E	180	363
N2UU	163	
K5KV	116	185
N5AW	116	
OK1RR	116	
N3IQ	110	

*73 de Art KZ5D, Activity Team Chairman.*

So, every summer I try to get there for four or five days to visit my cousin, eat great Italian food, and get nostalgic.

This year, I had a new toy to take with me – a K3/100. In addition, I had a Buddipole antenna, tripod, small MFJ transmatch, small switching power supply, paddle and headphones.

The whole shootin' match fit nicely inside my suitcase and K3 carry-on bag.



Once I got to Old Bethpage, it took me only a few minutes time to set up the Buddipole on my cousin's backyard deck.

### From the Editor...



I did something I try to do once per summer...I went to New York. Actually, I went to Long Island, New York. That's where I was born and raised, by the way.



For those of you who've never seen a Buddipole up close and personal, here's what it looks like.



The center mount (upper right hand corner) sits atop the tripod and has brass hardware that accepts each of the larger black element sections with a tapped coil (right, middle). You can mount them horizontally or one vertical/one horizontal (an "L" configuration). Since I usually have mine sitting on or close to the ground, I usually set it up as an L because the horizontal would be too high angle.

Once you've got the black element sections in place (with the tapped coils at the coupling feedpoint), you attach the extendable whips to each black element section and extend them.

The little pamphlet that came with the Buddipole talks about tap points and lengths, but I'm not about to start moving tap points around (I'm too lazy). So, I just pick a point that looks like it will work for 20 meters and use the MFJ transmatch to adjust the K3 for 1:1 SWR at the K3 output. I'm not worried about SWR and loss in the coax since it's only about 25 feet long. I leave the same tap point and just readjust the transmatch for 17m. I pick a different tap point for 40 and 30, and use the transmatch for both bands.

Once I have a good match at 5 watts out, I increase power and watch to see that the match remains a good one. And, then I go for it.

The conditions while I was in New York were horrible. But, I did manage to work a few stations on 20 and 17 during the day (a VP5), and 30 and 40 (an HA5) at night.

Next time around, I'm going to figure out a way to carry on the tripod and Buddipole because I had to check the luggage (and Delta charges \$25 per bag each way!).

Oh, for those who wanted to know what I thought of the Buddipole. It's a compromise vertical, like a mobile antenna. It seems rugged enough, and it's easy to assemble and disassemble.

*Rob, K6RB*

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## From N1DG and N3JT...

Fellow CWops Members –

It is time our Club reaches out financially to future CW enthusiasts. No, we are not asking for funds. Just the opposite!

Article II of the Club Constitution includes the following among its purposes:

2.1 "[T]o foster the education of young people and others in matters related to Amateur Radio."

Last month our newsletter detailed the new Education Fund to be administered by the ARRL Foundation. This fund is intended to provide grants exclusively to Amateur Radio organizations engaging in activities that promote the teaching of Morse code. We got some good press on the ARRL website to boot:

<http://www.arrl.org/amateur-radio-grants>

Also, we recently gave our first non-ARRL administered grant to the 2010 Youth DXAdventure group going in July to Costa Rica. Our \$100 grant helps fund several youths operating from a DX location (including education materials on handling CW pileups). Here too the club is earning nice press exposure:

<http://www.qsl.net/n6jrl/sponsors.html>

The Education and Outreach Committee is managed by Jim, N3JT, and Don, N1DG, but we can't do it alone. Many of you are members of local clubs or national societies (other than ARRL). We need to identify potential beneficiaries to further our purpose of fostering CW education under our Constitution. We would especially like to contact key representatives in European and

Asian radio societies. If you have that sort of connection, would you consider talking with someone there and letting us know what programs are in place or could be developed to teach CW, the amount of funding that would be needed, the way such funds would be sought and used, etc.? If you don't have such connections, would you consider developing them? In the long run, this may be more important for the survival of CW than even sunspots!

In advance, thank you.

Don and Jim

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## CWops do WRTC

If you want to get a sense of what it's like doing the World RadioSport Team Competition (WRTC), here's a first hand piece written by our own K6XX. Bob and another of our CWops, Rick, N6XI, were one of the 48 teams doing their thing in Russia last month.

### WRTC-2010

By: Bob Wolbert, K6XX

[Reprinted from the NCCC JUG newsletter, August, 2010]

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. Fortuitously, 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, RN0SA, UA0SA*

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 call sign 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.)

**Editor: We will have a first-person account from the other half of the team in a future issue.**

## **Another WRTC Perspective**

Rusty Epps, W6OAT, is real mover and shaker in contest circles. He's been involved in every WRTC since the beginning.

True to form, Rusty was in Russia, last month, as a WRTC referee. Here's this CWops member's perspective on how the Russians did and some of the new precedents they may have established.

### ***Rusty Epps, W6OAT...***

"I was the referee for Team Austria, R38N, comprised of Ivan, OE3DIA and Mike, OE6MBG. We were supported in the field by Paul RN3A, Vladimir, RN3DBQ, and Vladimir's son, Michael. I could not have spent a weekend with five more wonderful guys. They made the WRTC competition even more fun than I had expected it to be -- and I went there expecting it to be fun!

The aspect of this WRTC upon which I'd like to comment is the "field day" location concept. I have attended all six WRTCs (from Seattle in 1990 to Moscow in 2010). In each event, the Organizing Committee expended tremendous effort trying to equalize the operating sites so the competitors really would be pitting just their operating skills against one another.

The first five WRTCs placed teams at existing stations. Yes, these stations tended to be similar, but they never could be "as equal" as one would have desired. Some were on hilltops, some were on sandy beaches, some had line noise, and some had primitive amenities. They all were different in some way from the others. After each of the first five WRTCs, the competitors left wondering "Could I have done better if only I'd been lucky enough to draw a different site?"

Then came the Russians in 2010 with their "field day" concept for equalizing sites. I must admit I approached this idea with a lot of skepticism. How hot is it going to be inside a tent near Moscow on a muggy, summer Russian afternoon? And, what about the bugs? I'd read of terrible mosquito problems in Russia. Were we in for a real physical ordeal on top of the competitive ordeal?

In short, the answer was 'no.' When Team Austria and I arrived at Site 802 early Saturday morning, Paul, Vladimir and Michael already had everything ready for us.

The tent was big and airy with lots of room. It even was oriented so as to best catch the breeze. It was shaded from the sun by a reflective cover which did wonders for keeping down the inside temperature.

The generator was humming smoothly about 20 meters away from the tent, not making enough noise to be a distraction but providing plenty of power for our radio equipment, lights and a big fan used to keep the air moving. The ground was level and firm beneath us, so there were no problems with positioning the operating tables and our chairs. And at night, the tent zipped up in such a way that still permitted outside air to flow freely, but kept out most of the bugs. It was as comfortable as many of the multi-op stations I have had the privilege to visit over the years.

The 47 other teams were in tents identical to ours. All of us were located within a rectangle roughly 40 km by 30 km to ensure we had the same radio propagation, and although there were some gently rolling hills, the elevations of all the sites were within just a few meters of each other. Nobody had a height advantage or anything

which could be described as even remotely being a "hilltop location". All the stations were on flat ground and looked out over generally flat terrain in all directions.

Within the 40 x 30 km rectangle, sites were clustered in eight "pods" of four to eight stations each. Each site was numbered, and was selected by the teams through a random draw made Friday afternoon. Team Austria drew Site 802 which meant Location #2 in Pod 8. Within a given pod, the individual operating sites were spaced a minimum of 0.5 km apart.

With output power limited to 100 watts maximum, this spacing was sufficient to ensure there were no significant problems with interference from other nearby teams. The particular pod locations had been carefully scouted and selected by the Russian Organizing Committee to ensure a minimum of man made noise. Many teams commented later about how wonderfully quiet they found their sites to be.

At each location, the on-site Russian volunteer support team already had erected a small triband yagi atop a 12m tower which also served as the apex support for inverted vee antennas on 80m and 40m.

All 48 WRTC teams had identical antenna systems; the only flexibility they were allowed was to make slight adjustments to the resonant frequency or to reorient the end of a vee antenna if they wished to do so. So far as I know, no team elected to move the antenna ends because the Russian support team already had positioned them in such a way to ensure minimum interactions with the other antennas. All that was left for the individual WRTC team members to do was hook up their equipment to the antenna coaxes and get on the air!

How did this field day format work?

Exceptionally well from all accounts. In the days following WRTC, I spoke with many stations from around the globe who had worked WRTC teams. Their stories were always the same -- signal strengths from the WRTC stations were virtually identical. They were rarely strong (to be expected from only 100 watts and low antennas), and they all sounded just alike. One friend even commented 'I just tuned the band looking for 559 signals sending fast CW. They always turned out to be WRTC stations.'

The competitors themselves also seemed in agreement that the field day format had created the 'most level playing field' ever. Many said things like 'I knew whatever I was experiencing -- good or bad -- also was being experienced by my competition.' One member of Team USA remarked 'I did my best. But if I got beat, it was because somebody did a better job of operating than I did, not because he was luckier in the QTH draw than I was.'

WRTC-2010 probably has established a new standard for site fairness and equality. It is hard for me to imagine how future WRTC Organizing Committees can come up with anything better.

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