

Notes From the Winners of the 1996 World Radio Team Championship

What a blast! There's just no other way to describe the entire week of WRTC activities! Let me first and foremost thank the organizers of this event who made this all possible. Of course, I'm forever indebted to Jeff, KRØY, for choosing me as his partner!

Preparations

Tom, K1KI, and I arranged to fly out to San Francisco a few days early. While changing planes in Chicago, we notice gates "K6A" and "K6B" and decide that those just have to be the call signs awaiting our respective WRTC teams! (As it turns out, we couldn't have been much farther off with W6X and W6D.) While Tom visits with his relatives north of San Francisco, I explore Pt. Reyes National Seashore, which includes a site described as the "best receiving location on the West Coast" that is used for ship-to-shore communications for AT&T (KMI) and MCI (KPH). I wonder if W7RM might disagree slightly with their assessment. I also pass by the Marconi Conference Center along the way.

The following day, we visit with Chod, WB2CHO/VP2ML at his fine hilltop location. Tom and I listen briefly to the high bands and are deeply discouraged at hearing virtually nothing on 15 and 10 meters in the late afternoon. From there, we begin a long driving journey to fulfill our mission — to "train at high altitudes" in the mountains of northern California. After all, we're preparing for the Olympics of ham radio contesting!

After brief stops all over northern California, Reno, and Tahoe, we spot the town of Murphys, CA on the map and our route back to SF becomes clear. Tom nabs a picture of me visiting Murphys (before he could visit us, of course!), then it's off to the races through the tasty interior valley.

Tom and I are very relaxed and upbeat as we hit "WRTC Village." It was a great move to have gotten our feet on the ground a few days early and removed any sign of jet lag. Immediately, it begins to sink in that this is an unprecedented event. The camaraderie and goodwill are at a fever pitch. Introductions continue all week long and even after the contest. It really is impossible to meet everyone, but I am thrilled to meet so many new friends from around the world!

On a visit to Fry's Computers, we are amazed at the selection. Above and beyond the typical computer stuff is an



(L-r): Jeff Steinman, KRØY, Larry Agabekov, UA6HZ (referee), Dan Street, K1TO.

array of electronic gadgetry, Rohn push-up masts, and even food! Where else could one go for chips and chips, even without a casino? We help BA1FB decide to buy a Zip drive. As the aisle sign for Twisted Pair comes into view, Chris, ZS6EZ, says wryly, "Oh look, K1AR and K1DG are here!"

Friday morning at the meeting of all of the competitors, judges, and referees, many of us begin to wear our "game face." After numerous rules clarifications, the call sign and station selection begins. When the dust settles, Jeff and I are assigned to operate at WA6AHF's house. Our referee, Larry, UA6HZ (a veteran of WRTC-90), reveals the station profile. We have a Grade "B" station, but what really sticks out is the noise. It was measured at S9 to the west, S7 to the south, and S5 to the north and east. We compare notes with John and Doug (K1AR and K1DG) who have a location with S1 noise in all directions. We wonder how will we ever overcome 4+ S-units of noise.

Ruben, WA6AHF, is a terrific host. His shack is above the garage and we begin to set up Jeff's IC-765 and my TS-930S. Ruben offers to let us use his '765 and we decide that it would be a good idea to have both radios be the same to minimize any mid-contest confusion. Having not used a '765 before, I familiarize myself as well as I can. Checking all band combinations, we chart which ones require my newly purchased ICE filters. Our biggest problem turns out to be VCR set up, but that is finally resolved and we're ready to go.

Jeff, Larry, and I grab dinner in the all-too-familiar French Rooster pretty late and find that the only one left around is Lew, K4VX, in the lounge. A quick bribe seals the outcome! Seriously, Lew is concerned that Jeff is not psyched enough and tries to pump him up. We try to go to sleep around 11 PM, but that's a much earlier bedtime than the rest of the week and our minds are beginning to race with contest thoughts. With lots of past IARU operating experience under our belts, we were quietly confident.

3:00 AM comes awfully quickly, but we dutifully answer the alarms and show up at 4:00 sharp at the station. At 4:30, we learn that we will be W6X. Not bad! A thorough scan of the bands shows scant activity and we were certainly not expecting the incredible outpouring of on-the-air support that was about to ensue! Quick comparisons of signal strengths with others shows that we are about even with other WRTCers on every band. But the noise is back, S9 on 40 meters. Just then, we discover that there is substantial coupling between the 40-meter inverted V that was specially constructed for this event and Ruben's 2-element 40-meter beam that rotates just a few feet above it. By moving the beam in certain directions, we could substantially alter the noise level!

The Contest!

We agree to take one-hour shifts at the run rig. Jeff starts on 40 CW, as I think every other WRTC team does! After a rather disconcerting first 2 minutes with zero QSOs, Jeff peels off a nice 140

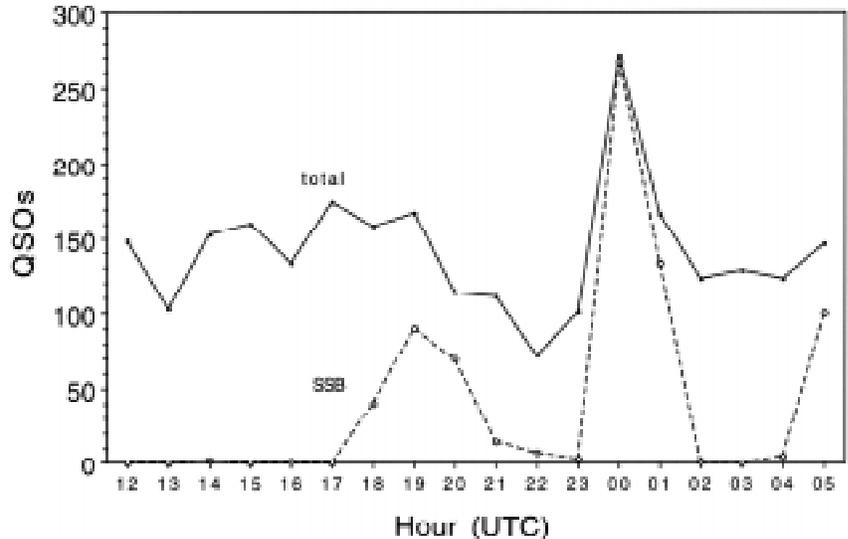
hour consisting of lots of bursts of USA and a smattering of common DX. We briefly try to both listen to the run frequency since 20 is poor, but the benefit is minimal and we abandon that approach early on. Amazingly, the dupes start coming only one half-hour into the contest, and we already have 6 dupes by the end of the first hour! We are also surprised to have no fewer than 9 other WRTC stations call us in the first hour. I find GM3POI, OH2PM, and HL5KY on 20, but we elect not to break the run for them. Never hear GM or HL again. As K1DG notes later, he and John have a 151 hour to start, which is outstanding! Bet they wish WRTC II was a one-hour sprint!

Quickly, Jeff and I realize how well we mesh as a team. Definitely, our intensity level has picked up. Although we are pretty business-like in our operation, there are often things that make us laugh during the contest. We are able to mutter short phrases to each other that are perfectly understood through our Heil headsets without being an interruption. Larry quietly and intently listens on the couch behind us.

The second hour is still 40 CW and our rate slows as expected. Long-path Africa never materializes for us as our sunrise passes and it is obvious that we are not using N6IP's 2-element Cushcraft and 500 watts that produced long-path entries in his log the past few years! At 1330Z, we try 20 CW and get off to a slow start before logging 14 Qs in 4 minutes. Then, it's back to 40 CW to nail ZK1AAU and UAØFZ for new ones and we stay on 40 through the end of the hour, knowing that we won't get much more time on 40 later.

Jeff starts the 14Z hour with 5 more minutes on 40 CW, but now with the sun well up, we log FM/WJ2O on 20 SSB and start a nice burst on 20 CW, averaging over 3 per minute for 37 minutes and even sneaking in VK4EMM on 40 CW. Jeff tries 40 CW one last time at the end of the hour, but logs just 17 Qs in 12 minutes.

Thinking that activity has already migrated to 15 meters, I start the 15Z hour there, but log only 17 Qs in 10 minutes and retreat to 20 which explodes with 142 Qs in 48 minutes, including VY1AU who meant to send VY1RAC! Jeff starts the 16Z hour by trying 15 again. It's better this time, but not as furious as we hoped for. Jeff hops to 20 CW, back to 15 CW, logs W1AW/3 on 10 CW and 15 SSB, then ends the uneventful hour back on 20 CW. We begin to wonder whether the level of activity can sustain us all day long. Undoubtedly, there will be next to no DX available for many more hours and we are not convinced that 10 meters will open at all, so we wonder how many stations will be available on just 20 and



15 meters. We're also concerned about our multiplier total which is nearly nonexistent!

1700Z comes and I head back to 15 CW which is clearly the right move. 140 QSOs in the next 45 minutes contribute to our best hour of the contest. With each CW QSO counting 2 points for us WRTC stations, our 170 hour equates to 340 points. We grin as we watch the "Last 100" rate meter reach 214 during this 15-meter run and the "Last 10" reaches 345 as I hit 10 CW for the first time just as the hour ends!

With the 2-point-per-CW-QSO rule firmly in our minds, we only consider SSB if the CW rate drops below 100 or so. Averaging over 140 CW QSOs per hour for the first 6 hours, we log just 3 SSB QSOs during that period!

Still concerned about the level of activity, Jeff finally decides to diversify and try SSB during the 18Z hour. Jeff is definitely the smoother SSB operator between us, so we consciously save the heavy SSB runs for Jeff's on-times. Although 19 Qs go into the log in 6 minutes, this still is not fast enough to justify being on phone so Jeff correctly retreats to CW. The first of many successful multiplier passes is Dave, VE7/W6AQ, to 10 CW. We hit 1000 QSOs (including dupes) at 1848Z, then try 15 SSB again.

I work a few more on 15 SSB, and try 10 SSB for a while with quick QSYs to 15 CW where JR1CBC surprises us at 1923Z. He is the only Japanese station in the high-band log for quite a while. After a nice burst on 10 CW, I pass VE4YU to 15 and coast to the 8 hour mark with almost 1200 QSOs in the log!

2000Z marks the beginning of a relative 4-hour lull period that averages fewer than 100 QSOs per hour, but generates a lot of multipliers. In Jeff's hour, we manage to log VY1RAC on 15, pass

XE, LU, and N7DF/ALØ to 10, struggle to work OA4EI on 15 SSB, break the pileup to TI1C and convince him to QSY to 20 for us, and even work JR1CBC on 15 again — this time on SSB! I find ZD8Z on 15 SSB and Jeff passes him to 20 CW, then we try 10 CW! Indeed, we hear Jim there, but our 100 watts just won't do the trick. Oh, well.

EA7AAW calls in on 20 CW at 2118Z for our first European QSO. Otherwise, this quiet hour includes a few JAs on 15 CW and a couple of relatively common multiplier passes. A personal highlight was logging K5QNF. My original call was WA1QNF and I had just read about K5QNF in a Field Day message posted to the Contest Reflector by K4JRB only two weeks before.

An even quieter hour follows, with a contest-low 68 Qs and a handful of multipliers, including two more Europeans that trickle in, VK4MZ who we spot on 15 SSB and pass to 10 SSB (followed of course 10 minutes later by VK4XA as we CQ westward on 10), and ZK1AAU who we find on 20 and move to 15.

ZK1AAU is found on 10 a bit later during the 23Z hour and the 20-meter Europeans begin to pick up, with I, SM, ON, and G calling in. Several ZPs on 20 SSB are unworkable, then we find a third — ZPØR — who we work right away through no pile! We reach 2359Z with 1545 good QSOs, only 225 of them on SSB.

Evaluating the CW-to-SSB ratio broken out on the NA Summary window, Jeff decides to have some fun in his 00Z hour and heads for fertile ground — 20 SSB. The lull is over! We watch together on my laptop as the rate meter soars all the way to 736/hour for the last 10 QSOs and 435/hour for the last 100 QSOs (that means the 100 QSOs were made in less than 14 minutes)! Remember, Jeff is the world-record holder (by far) with a 457 hour from

P40L several years ago in CQ WW SSB. To come even close to world-record rates in *this* contest is again a testament to the activity level that Rusty and the committee were able to spur on. Although the 288 SSB QSOs in 60 minutes are impressive, we still realize that it is the equivalent of only 144 CW QSOs, a total that is surpassed often during the contest.

Transmitting all day on the tribanders means listening all day on the 40-meter inverted v. We try several things, including listening on the opposite mode on the same band that we are running on. During the 00Z hour, this proves useful as I find ZW2Z on 20 CW for a new one. Jeff somehow finally manages to get TR8IG's attention and complete a 20 SSB QSO, after we had found her a long time before and kept going back to call and call fruitlessly in the pileup.

After we switch chairs, I stay on 20 SSB for a while, enticed by the rate. When VP5/W3HNC calls in, I move Joe to 40 CW. We can hear him clearly and I call for close to 5 minutes, but no QSO. Still several hours before sunset, we find ZD8DEZ and ZS6CAX on 40 CW. I am convinced that they are too weak and it is too early yet, but Jeff pleads with me to try for them. Am I surprised to work both of them easily! Jeff's experience from W5 in past years in this contest is definitely helpful as he had successfully worked stations over that path in prior years. As it turns out, lots of other teams also worked these guys!

After a few more SSB QSOs, I hit 20 CW for a big burst, getting the rate meter back to 295. We pass the 2000 QSO mark (unduped) at 0151Z. Jeff sits down on 20 CW for the 02Z hour, with quick QSYs for LU3HIP on 40 CW and L75AA on 20 SSB. Just after 0230Z, the Europeans start again as DL, RU3AA, LZ, and OH are logged along with UN7LG. Starting the 03Z hour, I'm listening closely for Europe while Jeff scours 40 with sunset approaching. RK9AWN is the only interesting log entry until 0330Z when we make our best strategy move of the contest by going to run on 40 CW and spot on 20.

40 CW goes crazy as the entire USA gets a chance at us. When the contest had started at 12Z, it was long past sunrise for most of the country and they had no incentive to be on 40 meters working us. Our adrenaline pumps as we're able to do quick QSYs for multipliers, then return to a waiting pileup on 40 over and over again. In the last 5 minutes of the 03Z hour, we work 4 new ones on 20, including OZ3W who calls me after I break through to RU9J! We quickly decide to break the tradition of hourly swaps and remain in our chairs.

The 04Z hour is just terrific, as 122 QSOs go into the log. Most importantly, a long list of 20-meter multipliers are

Here's the info for the top five teams in the WRTC. For the complete results, see the Sep/Oct '96 NCJ.

Call	Operators	Judge	Host	Score	QSOs	Mults	Uniq%
W6X	KR0Y K1TO	UA6HZ	WA6AHF	761829	2457	183	1.7
K6T	K4BAI KM9P	W6UM	NQ6X	678132	2511	162	1.2
W6R	K6LL N2IC	WR3G	AF6S	655720	2424	169	1.1
K6P	VE3EJ VE3IY	OH2KI	N6UUG	647112	2343	177	2.0
K6C	K4UEE N6IG	BA1FP	WB6PCJ	644059	2355	169	0.9

Call	Operators	Host	QTH	Antennas			
				20-10	40	Rig A	Rig B
W6X	KR0Y K1TO	WA6AHF	San Lorenzo	TH6@50'	Dp	IC765	IC765
K6T	K4BAI KM9P	NQ6X	San Jose	TH7@45'	Dp	FT1000MP	IC736
W6R	K6LL N2IC	AF6S	San Jose	C4@50'	Dp	TS950SDX	TS850
K6P	VE3EJ VE3IY	N6UUG	Suisun City	KT34XA@50'	Dp	FT1000	IC765
K6C	K4UEE N6IG	WB6PCJ	Redwood City	A4@50'	Dp	FT1000D	FT1000D

logged, many of them HQ stations for "double mults." Jeff and I have our QSY technique down pat now. He prepares the cross-over switching while I enter the frequency into the IC-765. Switching from 40 CW to 20 SSB and back is a fun challenge. We almost always choose to call a multiplier immediately after it is found and break the 40-meter run, knowing the heavy weight that multipliers carry.

Jeff knew that by getting the last hour, he'd get a shot at another uncharted band — 40 SSB. Sure enough, the masses descend almost immediately. N5RZ took all of 8 minutes to find us for his "sweep." We nail a handful more multipliers on 20 and end the contest calling GB5HQ unsuccessfully. We end the contest the way it started, with no QSOs for 2 minutes.

The Aftermath

As the final bell tolls, we exchange high fives, knowing that we were very consistent throughout the 18 hours and ending on a high note. There were very few lulls in our concentration and we figure we have a good chance at winning. Little did we know exactly how well things would work out!

A few statistics (inspired by similar numbers from K1DG): In "Jeff's hours" we made 802 CW QSOs and 481 SSB QSOs for a total of 1283 QSOs and 2085 points (avg. 143 QSOs and 232 points per hour). In "Dan's hours" it was 955 CW, 243 SSB, 1198 total for 2153 points (avg. 133 QSOs and 239 points per hour). North America accounted for 94% of our QSOs. We had only 33 CW and 5 SSB European QSOs on 20 meters, but most of them were multipliers! We logged 45 WRTC station QSOs representing 30 different competitors.

Back at the Motel-6, it is time for 3830

in person. Slowly, the scores roll in. We are surprised at the big QSO numbers from so many teams. Some teams head straight for bed, but I go to breakfast with K1KI and duck the sprinklers with the gang until the wee hours of the morning. It seems like every team is close to a 70/30% split of CW to SSB QSOs.

Much discussion afterward surrounds our multiplier which is just enough to be the top multiplier total. Jeff and I compile a quick list that reveals at least 30 more that we heard and did not work! On top of that, we read and hear about 9K2MU, 3V8BB, DU, KH0, KH2, 8J3XHQ, P29, CE, 4X, 9A, SV, and ZS (all on 20), DA0HQ, 5N, L75AA, VY1RAC and EA8 on 40, and even some Europe on 15 — none of which we were aware of at all! So, the potential multiplier was significantly higher than any one team could come close to. Nonetheless, we seemed to do pretty well during the contest at judging which ones were workable and this minimized our number of fruitless band changes.

The awards banquet was such an exhilarating experience for us! We were blinded by the sea of flash bulbs going off! And who would have thought that Pat, WA7NIN, would give such an emotional speech?

During my return connection through Chicago, I pass gates K6A and K6B again, then spot gates G6A and G6B! My passing thought is that those would make neat British calls for this contest. It is amazing to learn later that G6G and others really were on for IARU!

Hearty thanks to the organizers, sponsors, participants, judges and referees, station hosts (especially Ruben), and the nearly 2500 stations who worked us! The memories will truly last a lifetime. Let's do this again soon! ■