The 2008 ARRL DX CW Contest from OE4A

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I often tell coworkers that if I have a week's advance notice of travel to some faraway city, I can usually find someone I know there. They smile, but I know they don't really believe me. My business trips typically involve travel to the appropriate city, many meetings and a return trip in as short a time as possible. As a result, I rarely have an opportunity to mix business with ham radio sightseeing. This past February, however, I was presented with a rare chance to see if I could do both.

I manage technical sales for a company that makes software to remotely monitor machines and equipment via the Internet. A European prospect wanted to conduct a two-day workshop on our technology. Meetings in Germany were scheduled for the week of February 11, with one day in Stuttgart and another day in Munich. As I was working out flight details, I realized I'd be flying home the day before the ARRL International DX Contest (CW). My choices were to arrive home just a few hours before the contest began — after a long flight — or to find a place to operate the contest from Europe.

Figure 1 — Rainer, OE4RLC, (front) and Randy, K5ZD, ready for the start of the contest.

Spare Station, Anyone?

Using the CQ-Contest reflector I asked if anyone knew of a station in Europe that I could "borrow" for the weekend. Several replies, including one from Fabian, DJ1YFK, suggested the station of DJ6ZM in Munich. Several e-mails later Toffy welcomed me to visit and use his excellent station.

The difficulty of mixing business and radio arose immediately. The customer decided to move the meetings from Stuttgart and Munich to Graz, Austria — more than a five-hour drive from Munich. I wrote Toffy to decline his very generous invitation.

Now I faced the challenge of finding a station in a new city. One response to my original request came from KH6ND. He had contacted Mike, OE6MBG, about my situation and gave me Mike's e-mail address. Mike wrote back that his station could only do low-power contesting due to RFI problems in his neighborhood.

A subsequent Google search uncovered the station of OE4A and an e-mail address for Braco, OE1EMS. Braco's response to my inquiry was very fast and enthusiastic. He'd been thinking about going to his station in Bosnia (T93J) for the contest, so the OE4A station might be available. He contacted station owner Rainer, OE4RLC, and confirmed that someone could be there to let me into the station.

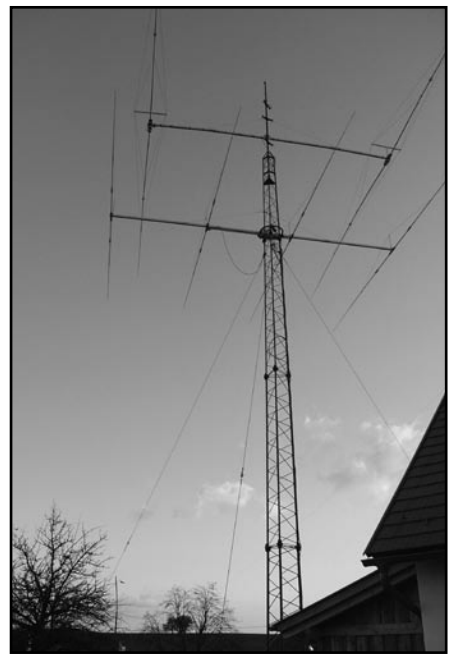

Figure 2 — The 2-element 80 meter and 4-element 40 meter beams at OE4A

I had done it! Within just a few days, I had found someone in a faraway city who could be called a friend, even though we'd never met before. One great benefit of contesting is that all those fast QSOs over the years create a familiarity that facilitates open invitations like this — even for people known only by their call signs.

The Wow Factor

After Braco and I exchanged e-mails, I became very impressed with the OE4A antenna complement. There were two towers, each 25 meters tall. One held a 2-element 80 meter beam and a 4-element 40 meter beam; the other supported a large Optibeam OB16-3 tribander. This was far more antenna hardware than I ever expected to have available.

Inside, there would only be a single FT-1000MP MARK-V. Braco had removed much of the SO2R switching for use at his T93J station. I knew this would make the contest a bit less interesting, but I wasn't

about to complain. At the bottom of the solar cycle, the ARRL DX contest usually has but one or two bands open at a time anyway. My plan was to call CQ as much as possible and let the W/VE stations find me.

During our e-mail conversations, I commented that it was somewhat suprising to find a station with such large antennas for 40 and 80 but lacking anything for 160. I wasn't really expecting to *win* the contest from so far east in Europe, but I didn't want to give away easy multipliers either.

Braco responded by making two trips from his home in Vienna to the OE4A station to put up a 160 meter antenna. This first trip was to try a quarter-wave sloper fed against the tower, but it wouldn't work at all. The second trip resulted in the strangest 160 antenna I have ever seen, but it worked!

The antenna was a type of inverted L. The coax from the transmitter went through a very large surplus antenna tuner. The tuner was connected to the tower ground system right outside the building. The feed line went directly to a piece of wire running up the side of the tower and less than 10 cm or so away from the tower. At the 20 meter point, the wire ran out and away from the tower to a point on the ground some 50 meters east. When I saw it for the first time, I couldn't believe that a wire antenna so close to a tower could work. Nonetheless, it did, and I owe Braco a large debt for making the effort!

Since the station had everything, my only requirement was to bring a good set of headphones. I never travel without my Bose noise-cancelling headphones anyway (they are great for silencing the noise of jet engines), so that was easy.

Business, then Pleasure

I raced through a week of business meetings and travel. By Thursday evening the business part was finished, and I had all day free on Friday. I spent the morning finishing e-mails and around noon went to the airport to rent a car. Avis gave me a very nice car with only 80 km on the odometer; I believe I was the first person ever to rent it!

From the airport, it was only a 25-minute drive south to visit OE6MBG. We have worked many times and even may have met at Dayton Hamvention® some years ago. Mike and his wife Elisabeth welcomed me to their home. I was impressed to see that Mike also had a 2-element 80 meter Yagi from Optibeam. I believe I'd only seen two 80 meter Yagis in my life, and now I got to see two of them in the same day — here and at OE4A.

Mike and I enjoyed a wonderful conversation about ham radio and the differences in contesting between the US and Europe. Finally, after three hours of talking and lunch, I had to break away so I could get to OE4A before dark.

Once back in the car, my first priority was to find food for the weekend. The OE4A station is located inside a barn-like building with no kitchen facilities. I had to bring whatever I needed to eat and drink for the weekend, with the requirement that no cooking could be done. I found a small grocery store on the way back to the highway and made a fast job of running through the store trying to think of all the things I would need. Bread, meats, cheese, cookies, water and Coke. This definitely was not going to be a gourmet weekend.

The weather was cold with occasional clouds and snow flurries. The highway was in perfect condition and driving was easy. It was about 80 km from Graz to the OE4A site in the town of Markt Allhau. I had no

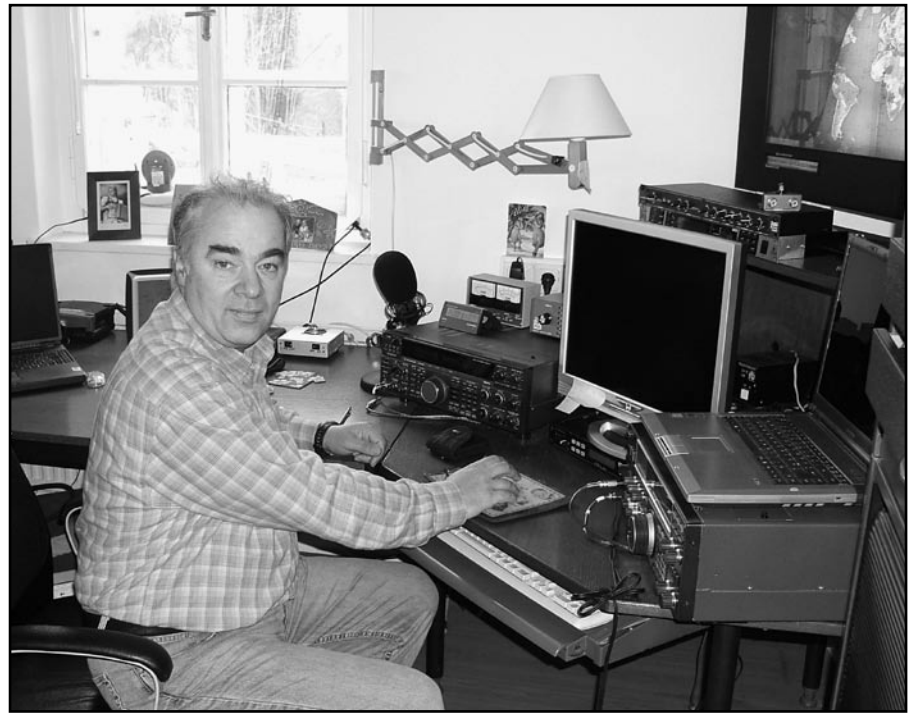

Figure 3 — Mike, OE6MBG, at the controls of his SO2R station

Final Scores* — Europe Single Operator All Band

Call Sign (Op)	*QSOs*	*Mults*	*Hrs*	*Claimed Score*
CT1JLZ (OK1RF)	2953	230	36	2,037,570
OK5R (OK1RI)	2747	216	38	1,780,056
G4BUO	2589	210	38	1,631,070
F6BEE	2445	210	33	1,540,350
OE4A (K5ZD)	2634	192	41	1,517,184
DL3YM (@DF2PY)	2424	206	41.5	1,498,032
F8CMF	2281	174	33	1,190,682

***www.arrl.org/members-only/contests/scores.html**

Final Score Breakdowns (QSOs/Mults)* — Europe Single Operator All-Band

Call Sign	*160*	*80*	*40*	*20*	*15*	*10*
CT1JLZ	225/37	432/53	780/55	1394/59	122/26	0/0
OK5R	172/35	445/52	839/55	1247/58	44/66	0/0
G4BUO	210/136	454/47	715/49	1171/59	39/19	0/0
F6BEE	160/32	348/46	863/52	977/58	97/22	0/0
OE4A	56/19	274/40	846/53	1373/57	85/23	0/0
DL3YM	166/32	359/44	708/53	1147/59	44/18	0/0
F8CMF	27/12	278/40	909/56	1058/58	15/8	0/0

***www.arrl.org/members-only/contests/scores.html**

problem following the directions Braco had given me and drove up to the building with the antennas a little after 4 PM.

As I got out of the car, Rainer called to me from across the road about 100 meters away. He waved for me to come down and invited me into his house. We enjoyed one of the best cups of tea I have ever tasted — a blend he'd picked up in Sri Lanka during a trip there — and discussed his work, the history of the station and his interests in ham radio. He normally lives in Vienna and uses this home as an escape from the city. It has enough land to put up antennas and neighbors who don't complain (too much) about them.

Contesting From a "Barn"

After an hour, we walked over to the station, and he showed me how everything worked. The station is a portable office building, the kind you might see at a construction site, installed inside a barn. There were desks down one side and just enough room to have chairs and passage to get by. The bathroom facilities were in a separate modular building. Getting there meant going outside. This provided a number of refreshing moments racing through the subfreezing air when I had to take nature breaks. There were no shower facilities.

The station uses band decoders to automatically switch the antennas based on the frequency of the radio. For the ARRL contest, everything was coming from the same direction, so I really didn't have to touch a rotator all weekend.

The amplifier was unlike anything I had ever seen before. Called an R-140 (or LV6), it is a product of the former Soviet Union and designed mainly for two-way SSB, CW and FSK communication service. Based on a GU-43B tube and having servo-driven tuning controls, these surplus amps are very popular among hams in Eastern Europe.

What made *this* particular amplifier so amazing to me was the way it had been modified for automatic tuning. A local OE3 technical expert had designed a microprocessor board to accept a pushbutton input and then automatically drive the servo tuning controls to the correct position. I would select a band, push the button, and after five or ten seconds of whirling knobs, the amplifier was ready to go. (There's a short video of the amp retuning at **http://picasaweb.google.com/randyk5zd/oe4aopk5zdarrldxcw2008**).

Near Disaster!

After Rainer showed me how everything worked, he suggested I spend some time operating and making sure I understood the station. Meanwhile, he tuned a second radio to 75 meters to talk with some locals. Suddenly the FT-1000MP I was using went deaf. We were never sure exactly what happened, but having both radios on 75 at the same time somehow had blown out the front end of the radio I was using. After a few minutes of panic and a phone call to Braco (who was up on a tower at T93J), we realized what had happened and switched the spare radio into place. There were no other spares, so I kept my fingers crossed there would be no more failures. Everything worked great the rest of the weekend. The replacement radio did not have a 250-Hz CW filter, however, and I would miss that on more than one occasion.

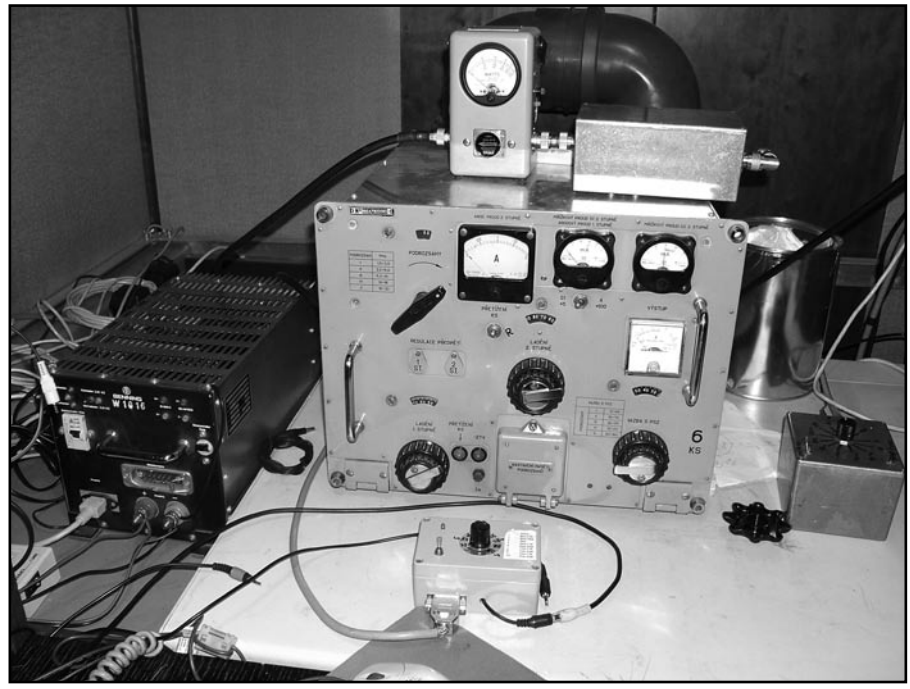

Figure 4 — The surplus Russian amplifier with "auto tuning"

Language Barrier

The only computer work we did was to change the operating system settings from a German keyboard to a US English keyboard. I type fast and very accurately, but I need to look at the keys to do so. The German keyboard had the "Y" and "Z" keys reversed and the slash (/) character was not in its usual place. Many times during the weekend I would make myself not look at the keys and trust my fingers to do the right thing. When I did look, I had to run an extra mental cycle to make myself push "Z" when I wanted to type "Y."

Showtime!

The contest began at 0000 UTC, which is 1 AM Central European Time. Knowing that I'd have to work the first eight hours without stopping, I took a three-hour nap around 9 PM. I worked K1XM (at W1KM) on 160 while waiting for the contest to start. It was the first QSO ever on Braco's 160 meter antenna, and it was a big relief to know it could be heard in the US.

I started on 40 meters and logged 141 QSOs in the first hour — my best hour of the whole weekend. The rest of the first night was a challenge. I kept trying to find a frequency where I could call CQ and run stations. Even with a 2-element Yagi, I couldn't seem to get anything going on 80. I did have one brief pileup on 160 around 0400 UTC that provided almost all of my QSOs and multipliers on that band. With only one radio, band changes were a challenge. The bands were so crowded that it often took five or ten minutes to find a new frequency to call CQ.

As the sun came up, I was able to hear many loud US signals on 80 and 40. All my efforts to call CQ were not producing many results, however. It was very interesting for me to hear how this opening sounds from Europe compared to how it sounds in the US. North American stations were very loud, even an hour or more after sunrise. As the Europeans were waking up and tuning the band, they would call all the US stations. For me, however, my target audience in the US was discouraged by the poor conditions and seemed to have all gone to bed.

About 0720 the rate was too slow to continue. There were still loud US signals on 40, but I decided to take a nap. The log shows five contacts between 0900 and 0930, so I must have awakened and tuned

the bands. I did check the online scoreboard, **www.getscores.org**, at this time to see how I was doing. The only score I could compare with was IR2C and they had done much better than I had on 80. While this concerned me greatly, there was nothing I could do but keep pushing.

I was off again until 1030 UTC when 20 finally opened. The band didn't really get good until aroud 1200, however. The next six hours were fun, but all on 20 meters. I kept checking 15, but it was dead until my first contact with VO1MP at 1451. The next QSO there wasn't until 1758, when the band finally opened to W3 and W4. I was able to call and work six stations, but I couldn't get any answers to my CQs. My best DX was a very weak NR5M in Texas.

Twenty Provides the Bread and Butter

The poor conditions left me with little else to do but keep running on 20 meters. I did make two QSOs on 40 around 2007, but 20 meters was the place to be. I finally switched to 40 at 2049 and was only able to find a CQ frequency up at 7048 kHz! I could get answers to CQs, but it was slow going. Keep in mind, this was with a 4-element 40 meter Yagi 20 meters up and sitting on top of a hill!

This early 40 meter opening was another major difference I noticed as compared to operating in the US. In Central Europe, 2000 UTC is 9 PM. The skip zone is already very long, so the Europeans aren't hearing each other very well and the US signals are loud and easy to copy. It's also prime evening time, so the Europeans are tuning the band looking for stations to work. In the US, however, it's still daylight. Only the serious contesters think to try to work Europe at this time, and the band is filled with stations calling CQ but not that many that tuning around. As a result, calling CQ from Europe doesn't result in much rate.

Low-Band Blues

As the second night wore on, I kept trying to grind out QSOs on any band I could. I knew I was behind on 80, so I tried to spend more time there. I alternated between 80 and 40 to maximize my chances to work new stations and multipliers. I kept trying 160, but I didn't find anything new except WD5R in Arkansas. At my sunrise I heard G4BUO running stations that I couldn't hear at all! I was surprised at how many European stations were willing to call "CQ test" on 160 all night, even when there were no US signals to be heard.

I was particularly frustrated with 80 meters. I've heard OE4A from home and know it's loud. Nonetheless, I just couldn't seem to work much except right along the US East Coast. In fact, I became convinced the antenna was broken until I had six California stations call in over a period of an hour (across their sunset). It still amazes me that I could work them but not work any W7 stations.

Figure 5 — Braco, OE1EMS (right), stopped by on his way back from T93J to his home in Vienna.

Sunday morning, my last QSO was at 0637. Once again, the loud US stations were getting plenty of action from Europe, but I was unable to get any answers. A little discouraged, I decided to get some sleep.

I came back on the air around 1030. Since I had already worked so many stations on 20, it was no surprise that rates were low. It was fun to watch the computer display show the gray line move across the US and see stations appear soon after their sunrise.

I was desperate for a new band to work stations, so I was checking 15 often. Around 1415 I heard NQ4I in Geogia getting very strong. Signals were good from Virginia down to Florida. I called CQ and was able to have two very short runs fueled by being spotted on packet. After 30 minutes, the band was gone, and I was back to 20.

Assuming 15 was dead, I didn't listen again until 1743, when I heard a number of stations in the Mid-Atlantic states. I chased multipliers and tried calling CQ for 30 minutes before I finally attracted some attention. The packet pileup resulted in a number of new multipliers, including W0AIH in Wisconsin and K5GO in Arkansas. Several stations from Texas, including NR5M and K5NA, were very loud. I ended up working 54 stations in a one-hour period. I was hoping for much more, though, as I'd been told that 15 meters is the best band to work W/VE from OE4A.

Grinding On

The rest of the contest boiled down to grinding it out on 20 and 40 meters. I stayed high in the band to avoid QRM and was rewarded with many QRP stations and unfamiliar call signs. The switch from 20 to 40 occurred at 2030, about the same time as the day before. During this period, Braco and his young son stopped by on the drive from T93J to his home in Vienna. It was very nice to have the opportunity to meet him, since he had done so much to make my visit to OE4A possible. We talked while I let the auto-repeat function do its job of calling CQ.

I spent the last 30 minutes on 80 trying to catch up for the contacts I'd missed the first night, but it was too early, and I only worked 23 stations. By then, I was happy to have the contest finally come to an end.

After the contest, Rainer helped me to clean up the station and restore it to its normal configuration. That only took about 30 minutes, and I soon was packed and in the car. I drove back toward Graz and

talked to my wife on the phone to help stay awake. My flight from Graz was scehduled for 6:30 AM, so there really wasn't enough time to bother with a hotel. I parked the rental car in the return lot and fell asleep until around 5 AM. My flight to Frankfurt was on time, and I had enough of a layover to get a shower at the Lufthansa lounge. The flight on to Boston was uneventful and I was home just 18 hours after the contest was over. It is indeed a very small world!

Summary

My OE4A operating experience was everything I'd hoped for. I enjoyed hearing all of my friends from the US and seeing who was loud — and who was not. The conditions were disappointing, but that's just part of contesting at the bottom of the sunspot cycle.

The OE4A station is very effective. It is probably one of the quietest receiving locations I have ever experienced. It was possible to hear the weakest stations on 20 and 15 meters. I believe most of my problems on 80 meters were due to my unfamiliarity with conditions and because of strategic operating errors. Looking at the logs, I feel I made some band-change mistakes.

The final scores (see tables) show that I had a competitive number of QSOs compared to others in Europe, but I fell behind on multipliers. I needed another 100 QSOs on 80 and another 20 multipliers between 80 and 160 to have any chance of winning. Even so, my goal of a Top 5 finish for Europe was realized.

A special "thank you" to everyone who helped on my trip: To Mike, OE6MBG, for his hospitality, to Braco, OE1EMS, for making the introductions and the effort in building the 160 meter antenna, and to Rainer, OE4RLC, for his willingness to have me as a guest and to be available until the end of the contest.

Mixing business and radio isn't always easy, but I am happy to have added OE4A to my list of DX contest experiences.

NCJ