TO RUSSIA WITH RF

(with apologies to James Bond)

Roger Western, G3SXW

N.v.d.r. Het World Radiosport Team Championship (WRTC) zal in 2010 (10 juli 1200 UTC – 11 juli 1200 UTC) plaatsvinden in de buurt van Moskou. 50 teams zullen er onder identieke omstandigheden met elkaar wedijveren in CW/SSB. De organisatoren – de nationale Russische radioamateurvereniging – hebben als geen ander ervaring met dergelijke grootschalige wedstrijden, zoals blijkt uit dit verslag van Roger G3SXW. WRTC-2010 is in goede handen!

Ndlr. Le" World Radiosport Team Championship" (WRTC) se déroulera en 2010 (10 juillet 1200 UTC – 11 juillet 1200 UTC) dans les environs de Moscou. 50 équipes vont s'affronter dans des conditions identiques tant en CW qu'en SSB. Les organisateurs, l'association nationale russe de radioamateurs ont beaucoup d'expérience avec ce genre de concours à grande échelle. Il en ressort selon Roger, G3SXW que le WRTC-2010 semble être néanmoins entre de bonnes mains !

The SRR (Russian national society) flag mounted on a SteppIR vertical. (photo: EY8MM)

G3SXW and RA3AUU visiting one of the RRTC field-day sites (photo: EY8MM)

There still seems to be little contact between Russia and the rest of the world. There is a cultural and language divide but we in the West perhaps still remember how restrictive this country used to be for foreign travellers. So I was intrigued to be invited to spend a weekend near Moscow to observe the Russian Radio Team Championship contest, in July 2009. The visa was a little more complicated and expensive than for other countries, requiring an 'invitation' stage (automatic web-site) but nothing to deter. Certainly in-country freedom was unmarred, as far as I could tell. So, Russia is nowadays quite accessible to ordinary folks.

The relevance of RRTC is of course that it is very similar to WRTC, with which I am involved. It is a mini-WRTC in most respects and the Russians will host WRTC-2010. They requested some prior WRTC Judging experience. Since this visit Dave K1ZZ and I have agreed to take part.

I travelled with British Midland International from London Heathrow to Moscow Domodedovo, a four hour flight plus three hours forward on the clock. There was a seat mix up on the outbound flight so I was upgraded to Business: what a jolly fine airline!

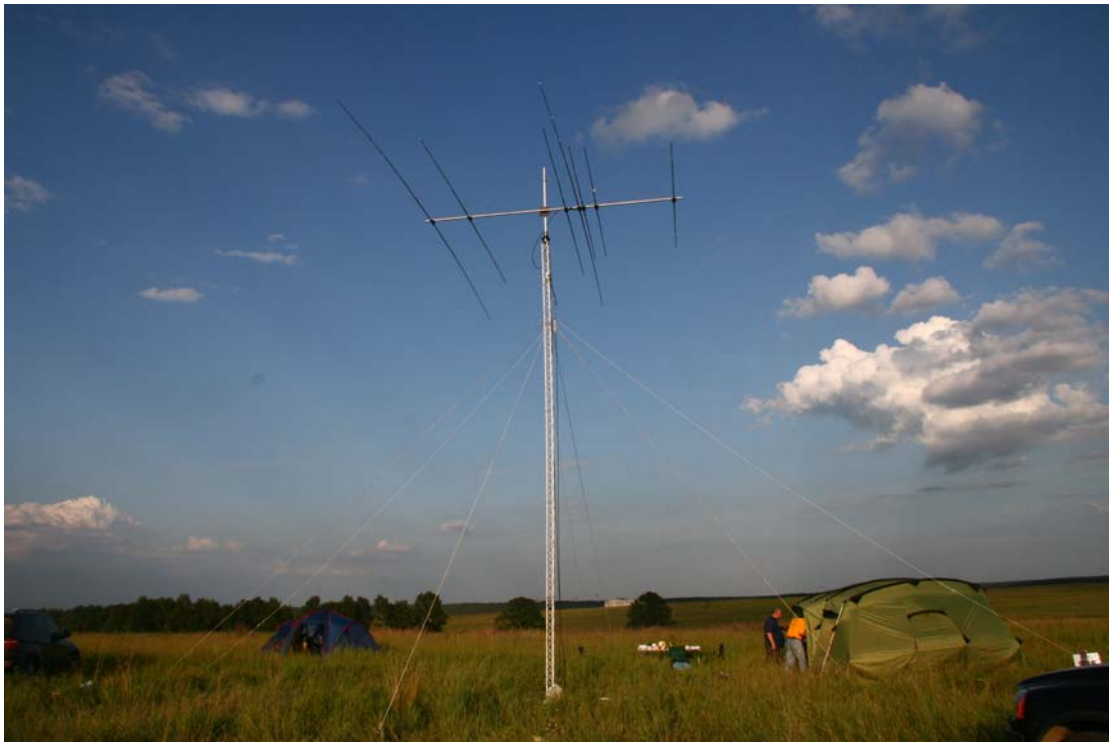
Arrival

It was hot, over 80F, when arriving late afternoon. I was met by Harry RA3AUU and Nodir EY8MM, both of whom are already on the WRTC-2010 Judges Panel, and taken to the Globus Hotel where I slipped into my newly-presented bright yellow RRTC Tee-shirt, much cooler.

Airport, hotel, WRTC HQ, and contest sites are all within just a few miles of each other, although heavy traffic congestion did slow things down somewhat. We then went to RRTC HQ, a group of quite large tents in the forest where I met many local radio amateurs, the organisers of this contest. Almost none of them spoke more than a few words of English but we managed somehow! I can't complain: my Russian consists of njet, da and wodka!

We were treated to a marvellous BBQ of steak and fish (salmon and sturgeon, yummy) and I was pleasantly surprised to note that the famous penchant for Russians to drink vast volumes wodka was not in evidence. (I am trying to cut down just now!).

Contest



One of the 18 site camps, with tribander (locally made C3) (photo: EY8MM)

This is an eight-hour Field Day event with two-man teams, mixed mode on 40-20-15-10 metres. RRTC has been running each year for nearly twenty years and it all worked like a well-oiled machine. First a site manager arrives at each Location (there were 18 teams this year) on the Thursday with an army truck full of equipment, leaving the same set of equipment for each team. As soon as the teams arrive at their randomly allocated Locations they start setting up the 35 foot tower with gin-pole with tribander (Russian equivalent of a C3) and 40m inverted dipole. Almost all teams have a tech support team, sometimes 3-4 guys. They then stay on site for the duration, solving any problems, filling the generator and tearing down after the contest. Each site is on one of several clusters of Locations, all within 10-15 miles of each other but never less than 500 metres from the nearest competitor. This is all on almost

completely flat rough grass-land. Height above sea level varied by no more than a few metres, with no noticeable sloping ground.

So, the organisers provide the tower, antennas, coax, tent, tables, chairs, generator & fuel. Rigs, switching, computers and everything else are brought by the Team. Some tents, I noticed had fans others an air-con unit! We were lucky with the weather as last year, apparently, they were nearly flooded out by torrential rains. Each team has two operators and two 100 watt transceivers. Organisers provide a traffic-light LED system to monitor output: up to 100 watts green, up to 105 watts amber and over 110 watts red. The full-time Referee must report any instances of the LED turning red. Each team also has a TX A/B blocker so that only one transceiver can transmit at the same time.

RA3AUU, G3SXW and a full-time referee observe two competitors, hard at it for the 8-hour contest (photo: EY8MM)

It starts at 11am and finishes at 7pm local time. QSO rates are enormous, the winner eventually (see below) making over 190 QSOs per hour for the whole eight hours. Meantime, organisers (and I) were free to visit sites and just relax. Each Referee sends SMS text message each hour to report the cumulative QSO total. This data is automatically uploaded to a web-site and it became clear within only about three hours who was to be the eventual winner. See: http://ozchr.srr.ru

The enormous QSO rates are much aided by fabulous filtering systems whereby the 2nd operator can listen on the same antenna/coax used by the 1st operator to transmit. I observed that this was mostly on two different bands

but that may well have been merely tactics to maximise QSOs, as I was told that the RX can get to within a few kHz of the TX frequency. So, this is more akin to 'Multi-Two', both operators bashing away as fast as possible but with only one transmit signal at a time. All transmissions are ultra-brief, CW at about 40wpm. Nevertheless co-ordination between the two operators is clearly essential and years of practice with your Team-Mate comes to the fore.

Log-Checking

Within an hour or two of the end of the contest all 18 RRTC logs had arrived at HQ, along with the full-time stereo audio recordings and Referee reports, so the log-checkers got to work. This function was performed by Mike UA9PM (Judge Chairman) and Dima UA4WLI (software guru). Within the four-hour window they had also received some 600 logs from other contesters, all of which go into one data-base. Then the cross-checking begins.

The first filter is wrongly formatted logs, wrong columns, wrong date, impossible clock times etc. There were few of these and I don't think they were corrected, merely being discarded to save time. A 'virtual' (or 'reverse') log is then created for missing logs, built with QSO loggings from submitted logs. Then call-signs and exchanges are cross-matched and deductions with penalties are made automatically by the software. I'm not sure of the cross-match percentage but it must have been 70% or more.

A list of 'Unique' QSOs then appears, defined by RRTC as being less than three loggings by all logs in the data-base. The points for these QSOs are deducted, without penalty. Finally, each Referee error-report is checked line by line, almost all of which have already been picked up in the data processing. Each item not already covered by the computer cross-match is then investigated by a human (possibly the only human input to the whole system) by listening to the audio-recordings. Total time spent completing this task was only a couple of hours, apparently.

During this contest the scoring margin between each place on the ladder was so big that I doubt any point-deductions would have made much difference to the final rank order. First place was some 10% ahead of 2nd place, who in turn was 5% ahead of 3rd. There was only one instance amongst the 18 logs where the final score was very close. Most entrants lost 5-6% of points in cross-checking. So, the efforts to log-check you might say were pointless – but, without going through the process you'd not know that the order of finish wouldn't change, and of course it adds immeasurably to confidence in the integrity of the contest.

The following morning, Sunday, all competitors and organisers assembled at the local concert hall (the Mayor of Domodedovo district is also an active ham!) for the awards ceremony. There were several brief speeches and all competitors were presented with a plaque memento and the three podium placed winners were bedecked with medals etc. They then left for home and I flew back to London.

WRTC Issues

RRTC Speech: (left to right) Nodir EY8MM translates as G3SXW passes greetings to RRTC competitors at the closing ceremony, with Mike UA9PM, Chairman of WRTC-2010 Judges. (photo: RU3AX)

Previous WRTC events have been organised in countries where no such Team contesting takes place. The big advantage of WRTC-2010 will be that the Russians have decades of experience of organising such events. This RRTC merely (!) needs to be ramped up from 18 to 50 teams, locations, referees etc and they will be 90% of the way there. Of course, many other challenges need to be met, such as hosting folks from 30+ countries who need tourist assistance, tweaking log-checking software to match WRTC rules, and so forth. The logistical challenges rise exponentially with the number of Teams.

WRTC-2010 could therefore break new ground in several specific but important ways. Firstly, the major advantage over previous years will be that no competitor will be able to shout 'foul' about their location being disadvantaged. All competitors must audio-record the whole contest. I am intrigued by the idea of changing call-sign each n hours: this would increase the competitiveness of operating skills (faster QSO-rates) and will also reduce the national flag-waving when contesters back home get to know the identity of 'their' team. There are a number of issues to be decided before next July, this being only one of them. Zero points for Uniques (to be specified) may also be an option. To maintain the level playing field concept of WRTC we must work to eliminate national support: the teams are supposed to be anonymous!

Other issues are being discussed, for example a vetting system to ensure that Referees are competent, including SO2R experience. Then there are a hundred non-contest, organisational issues, all the way from Funding to personal help with Visas and luggage, to banquets, local entertainment to mention but a few. Meanwhile, the WRTC-2010 HQ has been chosen and booked: the Atlas Park Hotel is a beautiful 4-5 star resort just near Domodedovo airport, at which all participants will stay and all ceremonies will take place.

After the weekend in Moscow I feel confident that WRTC-2010 is in safe hands and will be a major success. The contesting world will learn a great deal from their Russian colleagues, especially in terms of ultra-slick on-air operating.

Results

After log-checking these were the published results for RRTC-2009:

Rank	Team	**QSOs**	**Mults**	**Score '000**
1	RW3QC – RN3QO	1,422	480	683
2	RW1AC – RA1AIP	1,404	469	658
3	RV3BA – RA3CO	1,333	454	605
4	UA3DPX – RL3FT	1,329	440	585
5	RA4LW – RW4WR	1,253	445	558
6	UA3QDX – RK3QS	1,305	416	543
7	UA9ONJ – RW9OW	1,295	400	518
8	RN4WA – RA9CKQ	1,258	410	516
9	UA9CLB – UA9CDC	1,153	445	513
10	RW6HA – RW6HX	1,272	385	490
11	UA9SP – UA9TQ	1,175	393	462
12	RZ9AR – RA9AA	1,107	384	425
13	RU4HP – UA4HOX	1,202	351	422
14	RA1AR – RV1CC	1,171	356	417
15	RA3TT – UA3TU	1.031	371	383
16	RW3TA – RA3TYL	1,021	374	382
17	RA3MF – RX9UL/3	804	299	240
18	RN4AT – RW4AO	767	287	220

CW = 68.3%, SSB = 31.7%
QSOs deducted in log-checking = 5.4%

Special call-signs were allocated for RRTC: R33 plus two letters. This call-sign changed each two hours, starting with an empty log each time. Calls were R33CA-CR, R33BA-BR, R33FA-FR, R33DA-DR. The three letter exchange also changed each two hours. Calls and 3-letter codes were kept in a sealed envelope and handed to the Team by the referee ten minutes before the start of the contest.