

15th ARDF World Championships Opatija Croatia  
13.-18. September 2010



Amel Krdzalic - VA7KBA & Les Tocko - VA7OM

# The 15th World ARDF Championship

A small team of five people representing Canada, four from BC, traveled to Croatia to compete in the ARDF, in September 2010. <http://www.ardf2010.com/>

ARDF - Amateur Radio Direction Finding (also called Radio Orienteering or fox-hunting). [http://en.wikipedia.org/wiki/Amateur\\_radio\\_direction\\_finding](http://en.wikipedia.org/wiki/Amateur_radio_direction_finding)

This is the first time Canada has participated at the World Stage ARDF competitions.

# Championships - Venue

- The Championships was held in Opatija, situated at Adriatic Sea coast, 12 km west of Rijeka and 170 km west of Zagreb, capital town Republic of Croatia.

Opatija, often called the Pearl of the Adriatic, is one of the most popular tourist resorts in Croatia and has the longest tourist tradition on the Adriatic Sea. As early as 1883, Opatija was known as a favorite destination for high society and famous artists from all over the world who came to Opatija to find new energy in this unique landscape.

# Championship - Terrain and map

- Terrain characteristics

The terrains are located within 70 km range from Opatija. Mid-difficult, with small hills, mostly covered with forest. Competition areas are at 500 to 1000+ meters above sea level so there is big possibility of lower temperatures in competition area than those in Opatija (at sea level), warmer clothes are preferred. Region of Gorski Kotar has been selected for this purpose:



[http://en.wikipedia.org/wiki/Gorski\\_kotar](http://en.wikipedia.org/wiki/Gorski_kotar)

<http://www.gorskikotar.hr/index.aspx?lang=English>

# Map



- Scale 1:10000, contour 5 m.
- A3 size (297 x 420 mm) - one is landscape while the other is portrait oriented.
- Color printing, IOF standard, waterproof
- Reambulated in early 2010

# Amateur radio direction finding (ARDF)

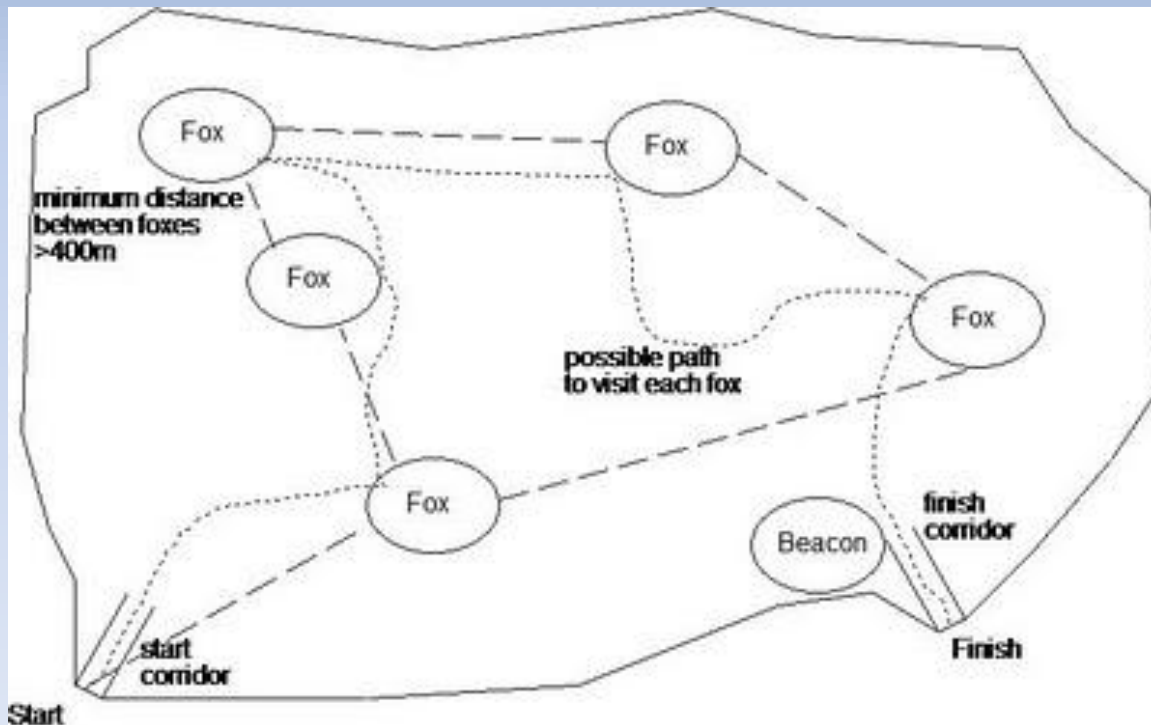
... also called Radio Orienteering, foxhunting, or transmitter hunting.

The game described here has been standardized and fostered by the International Amateur Radio Union since about 1978. The object is to locate and visit on foot each of up to five transmitters concealed in a wooded area in as short a time as possible by using a directional receiver to obtain bearings to the transmitters. The transmitters (foxes) all transmit on the same frequency, but take turns transmitting a unique signal for one minute and are silent for 4 minutes while the others transmit.

The skills needed to succeed include obtaining accurate bearings with the receiving gear, navigating through the wooded area using map and compass, and devising a strategy to visit the required sites in the minimum time.

The hidden transmitters, foxes, are located so that the associated marker flag (control) can be seen when the hunter is within about 3m of the transmitter; they will be at least 400m apart; no fox will be nearer than 750m from the start. A homing beacon on a different frequency from the foxes is located at the entrance to the finish corridor.

Each fox will transmit a signal with a unique pattern that identifies which transmitter it is. The standard patterns are incidentally slow Morse code characters, but you do not need to know that to understand which fox is on.



Prior to any competitor being on the course or starting of the foxes, it is usual to gather the receivers in a quarantine area near the start. When there are many competitors, they will be divided into groups of 3 to 10 and the groups start at 5 minute intervals to spread competitors out in time. A few minutes before the start, the competitors will receive a map of the area and any last-minute info about the course and will pick up their receiver from the quarantine. The receivers must remain turned off while awaiting start.

The hunter will leave the start position when instructed to do so, go to the end of the marked start corridor (about 100m long), turn on the receiver after passing the end of the corridor and begin to locate the foxes. At each fox, the hunter will punch his score card with that fox's unique punch to prove having visited that fox. After locating all the foxes required, or as many of them as there is time for, the hunter exits the course via the marked finish corridor.

The time elapsed from leaving the start position until reaching the finish line is recorded along with the number of transmitters successfully located to determine the hunter's standing with respect to others in his category. The standing is first among those finding all of the required foxes in the shortest time, then among those finding one fewer fox, etc. Those not returning to the finish within the maximum time limit (2 hours, typically) are disqualified.

# G. D. (Joe) Young – VE7BFK

- **Member of Friendship Amateur Radio Society Canada**
- Joe's been ARDF coordinator for Radio Amateurs of Canada since 2002. He's been a driving and supporting force in radio sport – ARDF development in Canada and BC. He's been regarded as an important and valuable member of Radio Amateurs of Canada ARDF. He has also been active in the Friendship Amateur Radio Society Canada and Worldwide. For more go to: <http://bcradiosport.blogspot.com>



# John MacConnachie – VE7GED



- **Member of Friendship Amateur Radio Society Canada**
- John is a member of the Friendship Amateur Radio Society Canada and has participated in ARDF competitions hosted by that organization since 1993. He has also been involved in hosting regular practice/demo ARDF sessions in Victoria since that time to the present.

# Valeri Geuorguiev – from VE2UMS

- Valeri has been active in the Montreal Amateur Radio club. He has increased their ARDF activities recently by contributing a design for a 2m ARDF receiver that was then constructed as a club project so that there are now a couple dozen equipped to participate in ARDF. He competed on the European and Region II ARDF levels and had great results.



# Les Tocko – VA7OM



- **Member of Maple Ridge Radio Amateur Club and BCRadioSport**
- Les was a Czechoslovakian and European champion in multiple categories, as an individual and in team competitions. For more goto <http://bcradiosport.blogspot.com>. He is also an active promoter and teacher of Radio Direction Finding skills in Maple Ridge BC area. His excellent technical building skills have produced high quality equipment for radio direction finding.

# Amel Krdzalic – VA7KBA

- **Member of Burnaby Amateur Radio Club and BCRadioSport**
- Amel was a national champion of ex.Yugoslavia and Bosnia in multiple categories, as an individual and in team competitions. He is also a reigning champion from the last International Friendship Amateur Radio Games 2008 in ARDF, in category “men below 45years. He is also an active promoter and teacher of Radio Direction Finding skills in Vancouver BC area. He’s been recognized by many radio amateur clubs for development of Radio Direction Finding movement (BCRadioSport) in Vancouver BC region.



# Nick Roethe joined the Team



Nick was born in Montreal in 1953. He lives in Germany since he was 5 years old, became an electrical engineer and worked for IBM in Germany and USA for many years. He enjoys hiking and rock climbing, and he is an active ham with special focus on ARDF. Nick today lives in Southwest-Germany, where Mercedes and Porsche cars come from. He has close relatives in Vancouver and has been there many times.

Nick participates in dozens of foxhunts every year, mainly in Germany, but also in other European countries. He has attended the last two Region 2 championships and won 3 first places. In this years German championship he finished second on 80m. Nick makes high quality ARDF receivers for both 2m and 80m bands. Just at the last German Championships in August 2010 receivers made by him won total of 6 gold, 5 silver and 2 bronze medals!

# Opatija 2010 ARDF - Training Camp

Organizer has offered 4 trainings before the 15 World ARDF Championship. Those have been placed in the forests area cca. 50km around Opatija, on both 3.5MHz and 144MHz, on 8th, 9th, 11th and 12th September. Nick, member of the Team Canada in ARDF has already been in Opatija for the traingings. We have the first reports from Opatija.

## Wednesday, Sep-8-2010:

Today was the first training, 80m band. Weather was unbelievably bad, pouring rain and heavy fog - visibility sometimes down to 20m.

Transmitters/Antennas/Operators were the ones that will also be used next week. One transmitter failed from the beginning, was replaced by a spare, that failed also. Computer failed because of water in the keyboard. Rough start for the organizers... Some transmitters were 10kHz off the stated frequency, but were strong...

## Thursday, Sep-9-2010:

We had the first 2m training. Same area as Wednesday, but much nicer weather, no rain or fog. The terrain was in the mountains, between 1000 and 1200 m high. It was a ski resort area. Dense vegetation, many trails hard to find because of overgrowth. We had a good orienteering map, 1:10000, A4 - so the area was less than 2 by 3 km...



# Program of the 15th World ARDF Championship

- **13 September, Monday** – Arrival, Accommodation, Registration;
- **14 September, Tuesday** – Training on both bands, 1st ARDF World Championships for the Blind, Official opening;
- **15 September, Wednesday**– First competition, Awarding;
- **16 September, Thursday**– Day off, Excursion;
- **17 September, Friday** – Second competition, Awarding, Closing ceremony and banquet;
- **18 September, Saturday** – Departure.

# Day 1 - Arrival



# Nations represented

383 competitors from 33 Country, number of competitors:

Ukraine, 37	Japan, 34	Russia, 32
Germany, 30	Czeck Republic, 27	
China, 26	Slovakia, 24	Slovenia, 19
Poland, 18	Croatia, 18	
Bulgaria, 17	Hungary, 16	USA, 16
Korea, 12	Lithuania, 12	Great Britain, 11
Kazahstan, 11	Sweden, 11	Belgium, 9
Norway, 7	Bosnia and Herzegovina, 6	Canada, 6
Netherlands, 5	Estonia, 5	Belarus, 5
France, 4	Mongolia, 4	Austria, 3
Denmark, 3	Australia, 3	Albania, 2
Israel, 2	Spain, 1	



# Day 2 - Training (2m, 80m)



# Day 2 - Competition for the blind



# Day 2 - Opening ceremony



# Day 3 - Competition day and awarding



# Day 5



# Hamfest



# Comments on the blogspot:

- Rick - VE7TK said...Go Team Canada! Good luck gang! Have a great and successful trip!  
73, RicVE7TK September 10, 2010 8:35 AM
- After first day competition... Anonymous said...The suspense is killing me as I am on the same time zone. How did it go? 73 Keith
- Anonymous said...Great location! Good luck to everyone! Sam.
- Dominik said...Congratulations to Nick on the ascent to the transmitter 5, which was almost half of the ski track :) I wish you luck. September 10, 2010 2:59 PM
- Hi Valeri, Looking forward to seeing you again in Croatia.  
Jerry Boyd WB8WFK, <http://www.wb8wfk.com/> August 18, 2010 4:49 PM
- Marvin, KE6HTS said...Congratulations of fielding a team this year! I'm looking forward to meeting the team over in Croatia. Marvin, KE6HTS

# Visit websites:

- [http://www.wm5r.org/photos/2010\\_world\\_ardf/](http://www.wm5r.org/photos/2010_world_ardf/)
- <http://www.darc.de/referate/ardf/contest/10091517/10091517.htm>
- <http://bcradiosport.blogspot.com>
- <http://www.ardf2010.com/>

