



Toni Lindén, OH2UA

Dayton Hamvention 2009 – Contest Forum

RADIO X ARCALA

The Radio Arcala Strategy is based on four cornerstones and three locations in three corners of Europe

Why This Way.....

Where We Come From.....

What We Drive.....

How We Play.....

OH8X

Arctic Approach Under Aurora Oval

Land of Telecommunication

Radiosport on Extreme Level

On Young People's Terms

CU2X

TC4X

Drivers for Radio Arcala

- * Make ultimate station dream and operating experience come true
- * Capitalize on historical heritage and innovative amateur radio in Finland
- * Utilize technical, conceptual and competitive strength of OH8X team
 - * Attract young people through extreme concepts at Radio Arcala
 - * Share Arcala experience throughout amateur radio community
- * Support academic world with Arcala related research projects and facilitate post-graduate studies



TRYING TO DO IMPOSSIBLE CREATES GREATEST INNOVATION

NORTHERN DIMENSION — ULTIMATE CHALLENGE ON ALL FRONTS

LAND OF TELECOMMUNICATION — PROFESSIONAL APPROACH

RADIO SPORT ON EXTREME LEVEL — EXTREME SPORT CONCEPT

YOUNG PEOPLE TERMS — MEET, TALK AND DO YOUNG



TRYING TO DO IMPOSSIBLE CREATES GREATEST INNOVATION

NORTHERN DIMENSION

IN ALL FRONTS

COM

CONCEPT

LAND C

PROACH

YOU

DO YOUNG



IT'S US WHO NEED TO LEARN HOW TO ATTRACT TODAY'S YOUTH

www.radioarcala.com/facebook

facebook

Sign up for Facebook to join Arcala Xtremes.

Arcala Xtremes

Basic Info

Type: Common Interest - Hobbies & Crafts
Description: Group for fans of Arcala Xtremes and Radio Arcala project, OH8X & CU2X.
www.radioarcala.com

Contact Info

Website: http://www.radioarcala.com

Members

Displaying 7 of 67 members



Group Type

This is an open group. Anyone can join and invite others to join.

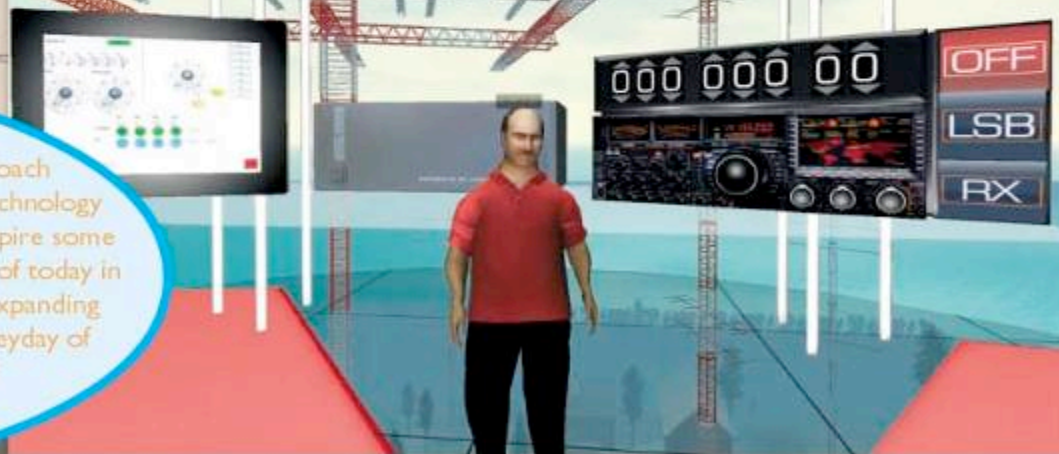
Admins

• Test (owner)



Marko, OH4JFN at the controls of Radio Arcala, OH8X or CU2X, Azores in Virtual Reality — from his home desk.

— With the idea of presenting a new approach to today's youth and showcasing the newest technology and its full potential in Virtual Reality, we can inspire some new thinking on how to meet the young people of today in their own hangouts so as to create/boost an expanding global ham community as we did during the heyday of Amateur Radio, says Juha, OH8NC of Virtual Radio Arcala.



Our History

Our Future

Our Community

Arctic, Aurora, Snow and Ice

Our Extremes

Our Heritage

Northern Europe, OH8X

Developing Best Technology

Our Playing Field, Europe

Our Dream Lands

Southern Europe, CU2X

**Record
Baselines**

Multicultural Challenge

Technology Transfer

Experiment & Innovation

Competitive Spirit

On Young People's Terms



EXTREME RADIO CHALLENGE

SWAPPING NORTH AND SOUTH

SOUTHERN RADIO RESULTS FROM NORTH

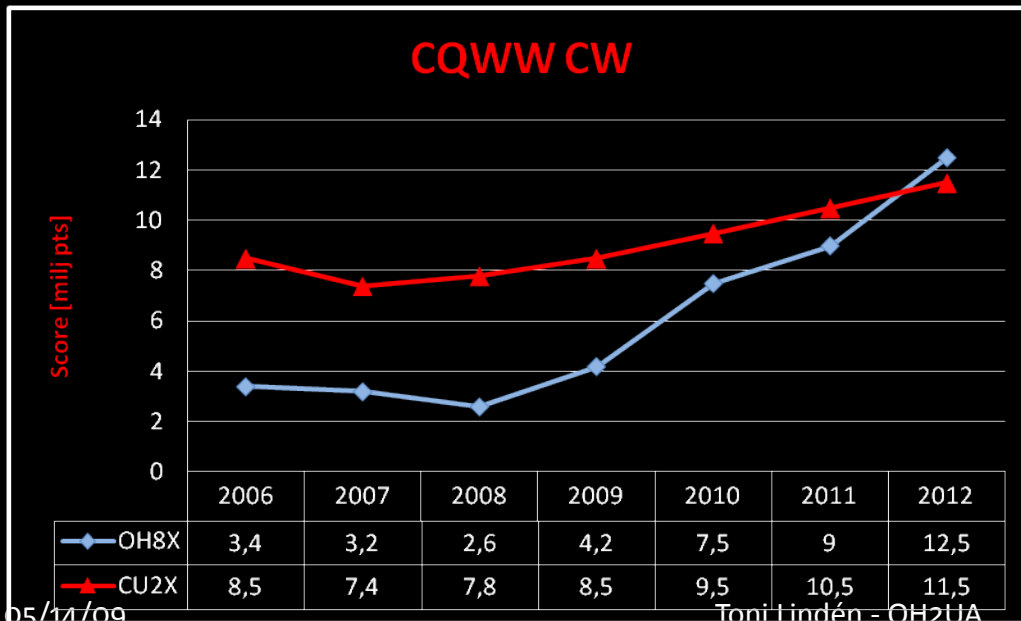
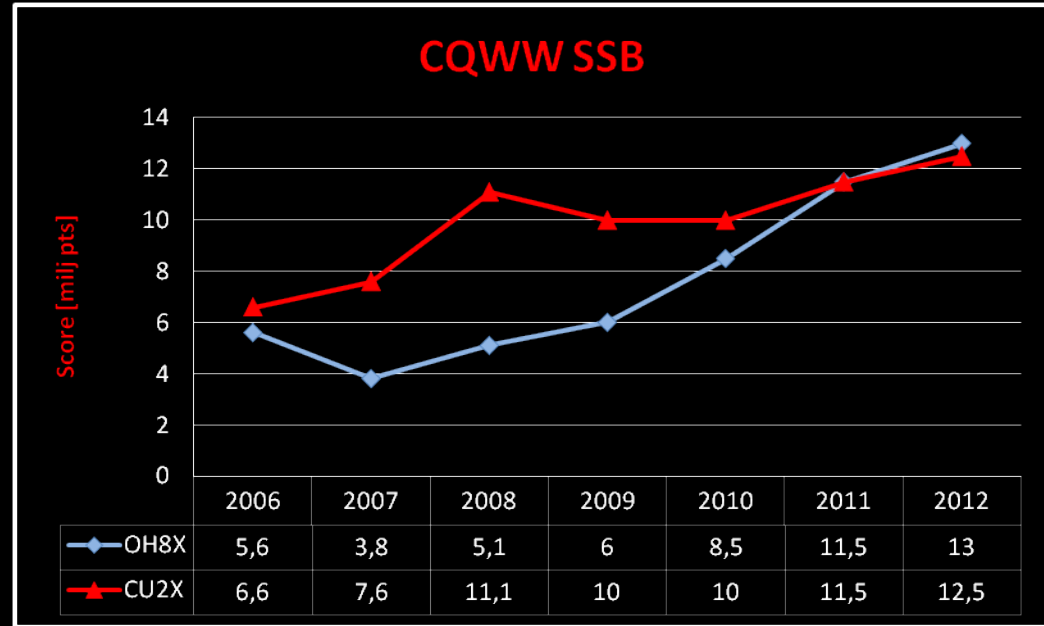
PROFESSIONAL AND SYSTEMATIC APPROACH

YOUNGSTERS IN DRIVER'S SEAT

BENCHMARKING SOUTH - CU2X



SWAPPING NORTH AND SOUTH



WELCOME TO AZORES, CU2X

www.visitazores.org



A ZORES – PART OF THE ARCALA TRIANGLE

CU2X

Radio Arcala's playing field is Europe but they operate in a global context. Their mission and their experiences are wide open for others to study. They honor the competitive framework and encourage an honest and open effort. They see Europe as a triangle where OH8X stands in the North, the Azores, CU2X in the West and Turkey, TC4X in the East.

The Azores are situated in the middle of the Atlantic as Europe's westernmost outpost. See www.cu2a.com

The Arcala crew are proud to have the best local people to share their out-of-home mission and help them understand the local practices and cultures. In the Azores, the slick CU2X callsign is their on-the-air trademark while the station's signals radiate the spirit of their mission.





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View to Europe



And to North America





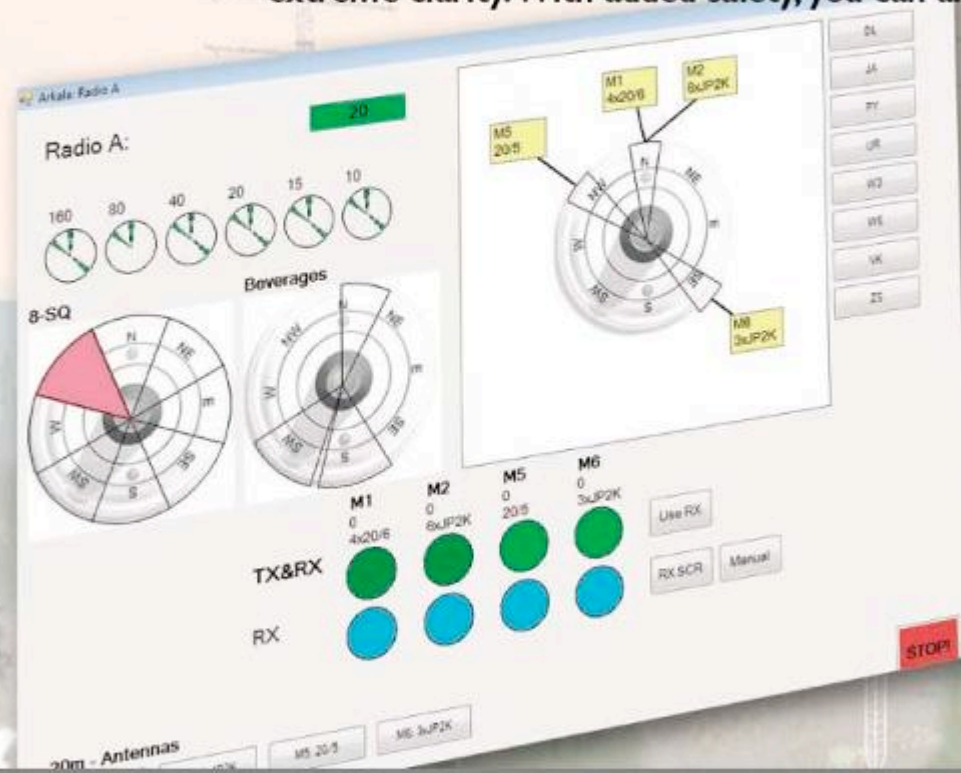
WELCOME TO ARCALA,
OH8X





SITTING DOWN IN A HI-TECH COCKPIT

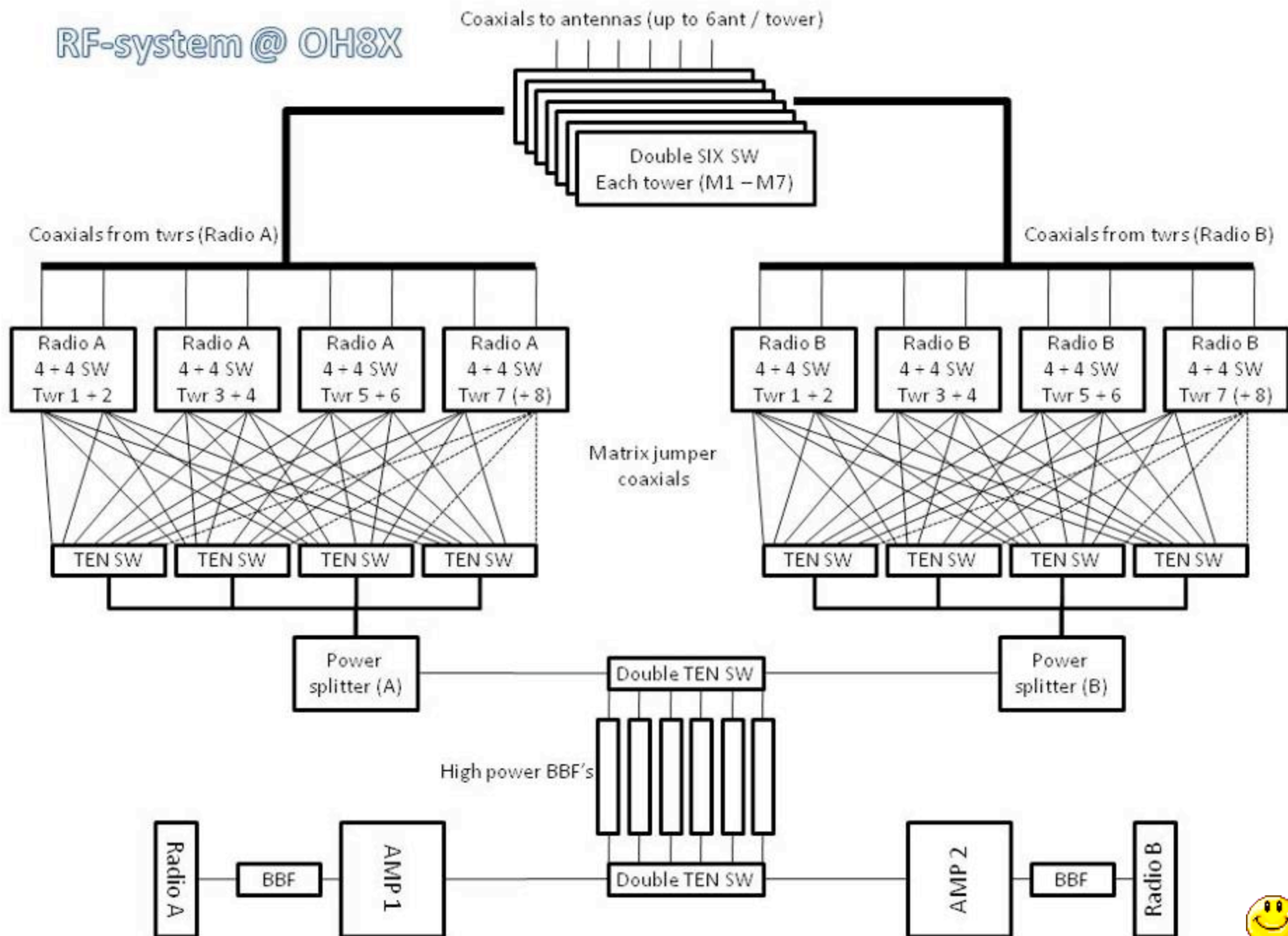
Commanding a complex SO2R Space Shuttle assumes skilled pilots for safe landing and hitting the target. Experts of the Arcala engineering team have created an ultimate cockpit with maximum comfort and ultimate driving pleasure. During a long operating stint, every needed feature is highlighted and brought to the operator with extreme clarity. With added safety, you can always bring the mission home safely.



The cockpit incorporates three supporting touch screens for displaying and controlling the overall situation plus two bands in operation at any given time. Default layouts follow the propagation patterns and allow quick multiplier moves by touching a screen with supporting layout. The Radio Arcala backrooms are designed with plug-and-play modularity.



RF-system @ OH8X





OH8X Station Tour

- Tower 1: 105 meters high (344ft) rotatable tower
 - holds 20M (4 x 6el) and 80M (2 x 2el) yagis.



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OH8X Station Tour

- Tower 2: 60 meters (200ft) high rotatable tower
 - holds 40M (2 x 2el) and 20/15/10M (6 x 10el) yagis.



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OH8X Station Tour

- Tower 3: 60 meters (200ft) high rotatable tower
 - holds 40M (2 x 2el) and 20/15/10M (6 x 10el) yagis.



OH8X Station Tour

- Tower 4: 60 meters (200ft) high rotatable tower
 - holds 40M (3 x 2el) and 15M (3 x 6el) yagis (+30M & 17M)



OH8X Station Tour

- Tower 5: 42 meters (140ft) high rotatable tower
 - holds 40M (2el) and 20/15/10M (5el per band) yagis



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Lindén - OH2U/



OH8X Station Tour

- Tower 6: 42 meters (140ft) high rotatable tower
 - holds 40M (2el) and 20/15/10M (3 x 10 el) yagis



OH8X Station Tour

Impossible is Nothing



OH8X Station Tour

- Tower 7: 100 meters (330ft) high rotatable tower
 - Holds 160M (3el) and 80M (5 el) yagis



OH8X Station Tour

Height and weight of the system

Tower height 100 m (330 ft)

80 m beam 90 m (300 ft)

160 m beam 80 m (270 ft)

Total weight 39 600 kg (80 000 lbs)

Elements, gain and take off angles

160 m 3 elements, 12.9dBi, 26°, F/B 20-30dB

80 m 5 elements, 15.7dBi, 12°, F/B 20dB



OH8X Station Tour

160 m elements

Weight 1600 kg, (3800 lbs), each
Length 59 m (190 ft), all elements 12m (36ft)
capacitive hats
Each use 700 m (2100 ft) of tubing
Tuned with 06 μ H coils at the centre
Relay switches for turning the ant 180°



80 m elements

Length 46 m (140 ft), longest
10 m from the 160 m antenna
max wind load, 70 m/s.

Boom dimensions

160 m length 71 m (215 ft)

80 m length 60 m (200 ft)

The triangular 160m boom (2.2 m, 7.3 ft) comes
with a rail for walking inside it.



But It's Not Just Hardware

- "With 90% preparation you'll get 50% score"
- E.g., CQWW 2008 SSB @ CU2X
 - Target score 11,709,135
 - Claimed score 11,403,336
 - Difference between target and claimed less than 3%...

DAY 2	160	80	40	20	15	10	Remarks
0000	RUN		S&P				
0030	S&P		RUN				
0100		S&P	RUN				
0130		S&P	RUN				
0200		S&P	RUN				
0230	S&P	RUN					
0300		RUN	S&P				
0330	RUN		S&P				
0400		S&P	RUN				
0430		S&P	RUN				
0500		RUN	S&P				
0530	RUN	S&P					
0600	S&P		RUN				
0630		S&P	RUN				
0700		RUN	S&P				
0730		RUN		S&P			
0800			RUN	S&P			JA LP (40)
0830				RUN	S&P		
0900				RUN	S&P		
0930				RUN	S&P		
1000				RUN		S&P	
1030				RUN		S&P	
1100					S&P	RUN	
1130					RUN	S&P	
1200				S&P	RUN		
1230				S&P	RUN		
1300					RUN	S&P	
1330					RUN	S&P	
1400				S&P	RUN		
1430				S&P	RUN		
1500				S&P	RUN		
1530					RUN	S&P	
1600				S&P	RUN		
1630				S&P	RUN		

	160	80	40	20	15	10	
Run (h)	2,00	6,00	13,00	11,50	13,00	2,50	48,00
S&P (h)	3,50	7,00	7,50	13,50	10,50	6,00	48,00
Avg rate	125	100	107,692	165,217	215,385	200	
QSO	250	600	1400	1900	2800	500	
Zone	12	20	25	35	32	20	
Cty	60	95	100	130	120	60	
Pts/Q	1,9	2,1	2,2	2,4	2,3	1,4	
QSO tot	7450	144	565	709			Target score: 11709135
16515							

1 Mult = n. 22 EU QSO / 7 DX QSO





Arctic Approach Under Aurora Oval



Radiosport on Extreme Level

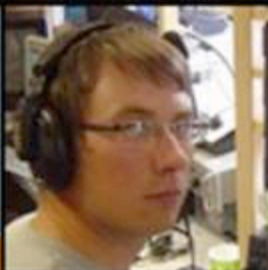
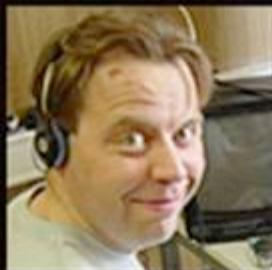


The Land of Telecommunication



Young People Terms

FEATURED MEMBERS



www.radioarcala.com

