

**The secret of  
winning the  
region 1 VHF  
contest from  
far up north**

**5P5T**



# Who are 5P5T



OZ1FDH



OZ1DJJ/OX3LX



PA5DD/OZ1DOQ



OZ1GER



A  
G



OZ5BD/OX5T

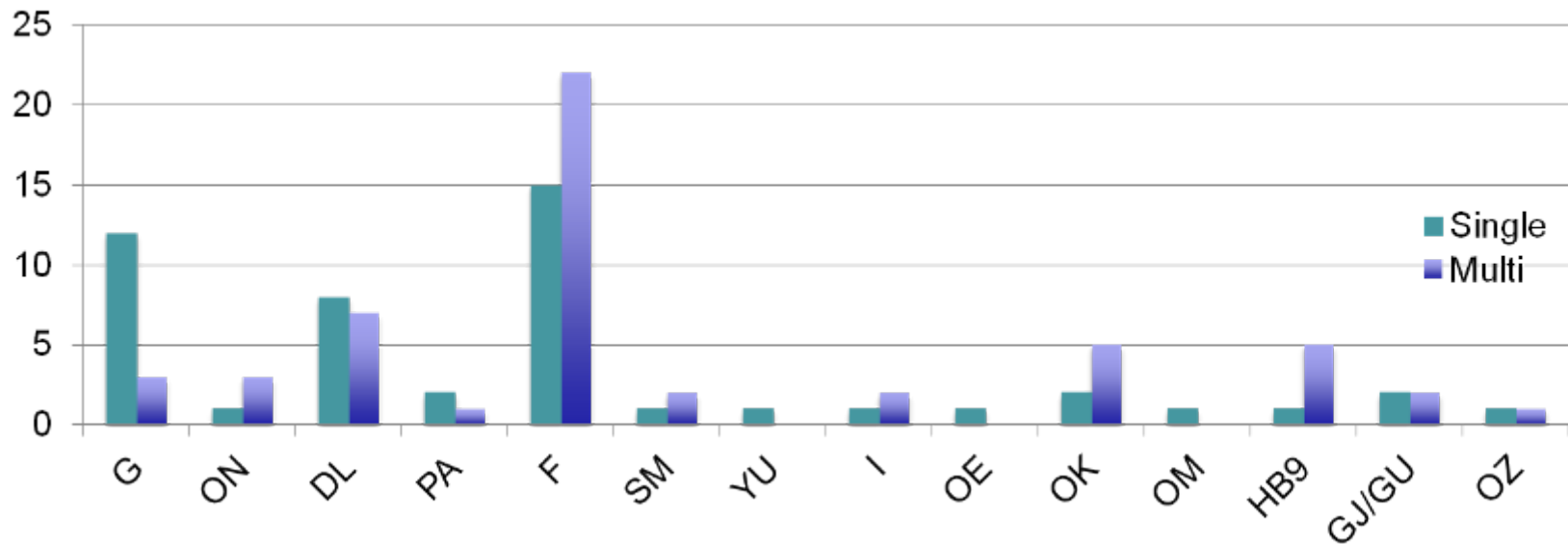
OZ1HDF

# Why the region 1 VHF test?

- It is the largest prize you can dream of in a VHF contest. It doesn't get any bigger!
- You need state of the art equipment and the best operators.
- OZ hasn't won since 1973, but sometimes miracles happen!
- My own dream started in 1979, -a few months after I got my license...

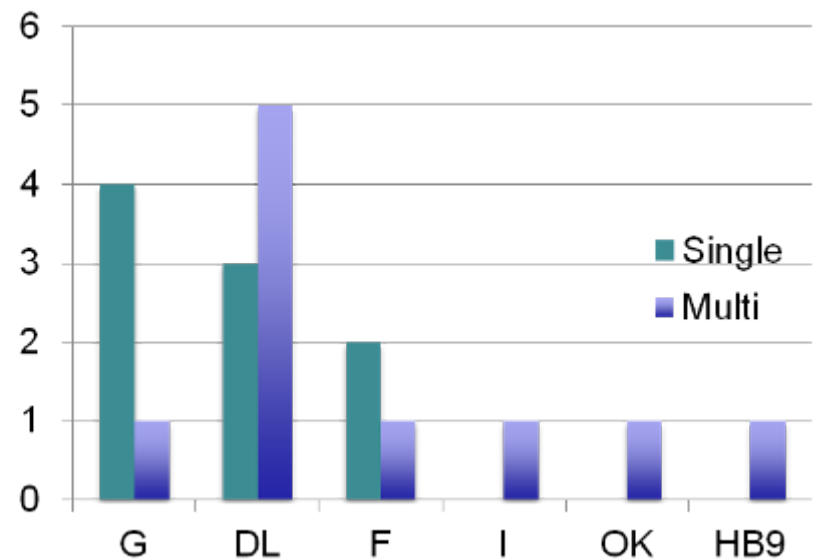


# Distribution of winners by DXCC



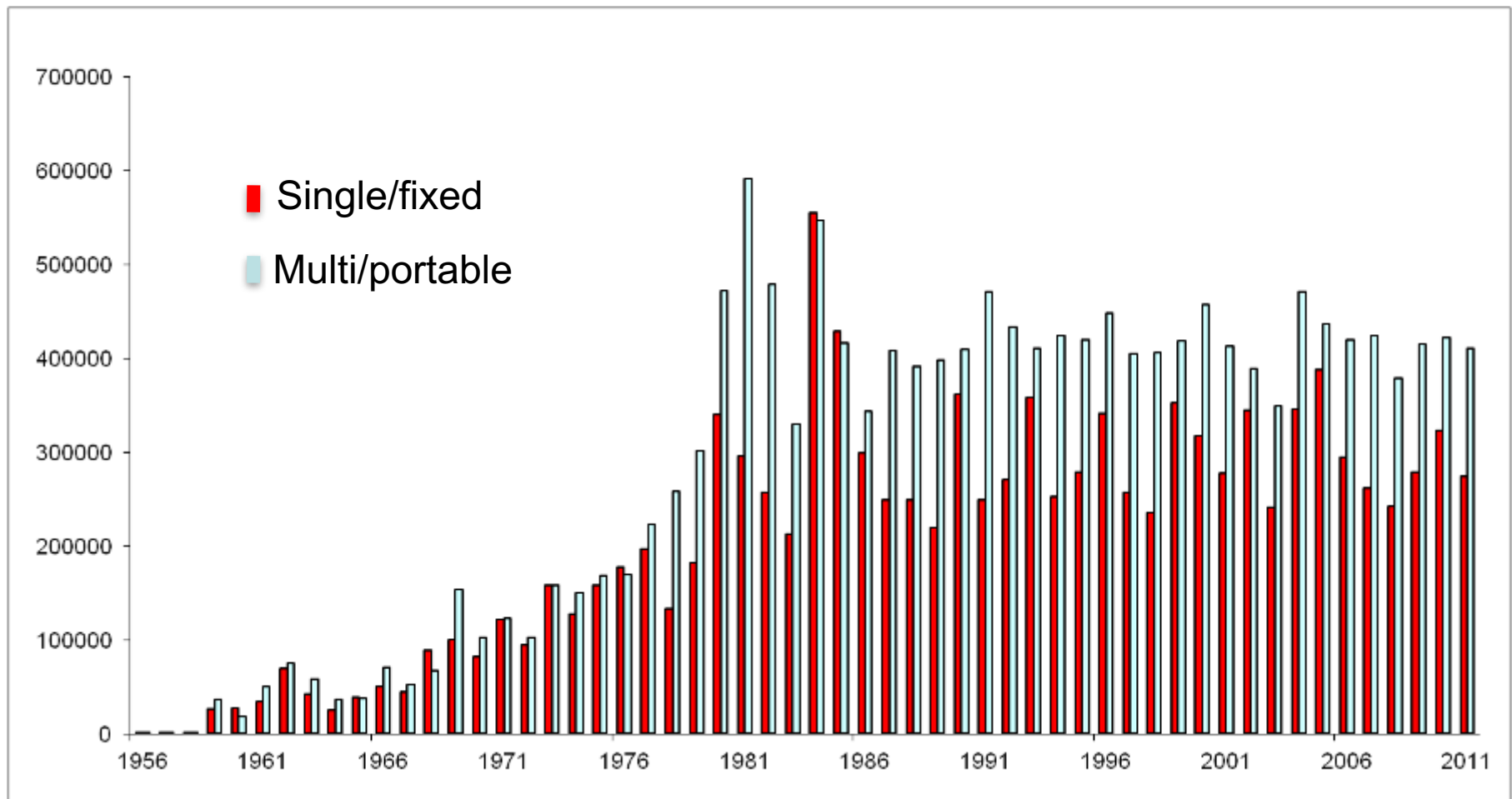
1956-2011

2001-2011





# Winning scores 1956-2011



Records: Points OK1KHI/P 1982, 591,000; QSO's DL0GTH 2006, 1245 QSO

–the golden year for OZ!

Meldgaard Tryk, Herning.

[illegible]

57. OK1VHN	19 551
69. OK1VCW	17 741
72. OK1NQ	17 347

.....

12. OK1PG/P	65 928
24. OK3CD/P	51 223
37. OK3HO/P	45 244

# OZ1OZ 1969

- RX: 6CW4
- TX: QQE 06/4
  - x-tal controlled only AM and FM
- Ant 4x6 el
- Operators OZ9PZ, OZ2CV, OZ2ND and OZ5GN
- The trophy never arrived,  
-1969 was not a good year in OK.



# OK1KHI/P 1981

- Absolut all time record of 591,000 points and 1103 QSO
- A modest station achieved this fantastic result
  - 2 x PA0MS yagi
  - PA with QQE 06/40 80 w
  - 2nd RX didn't work



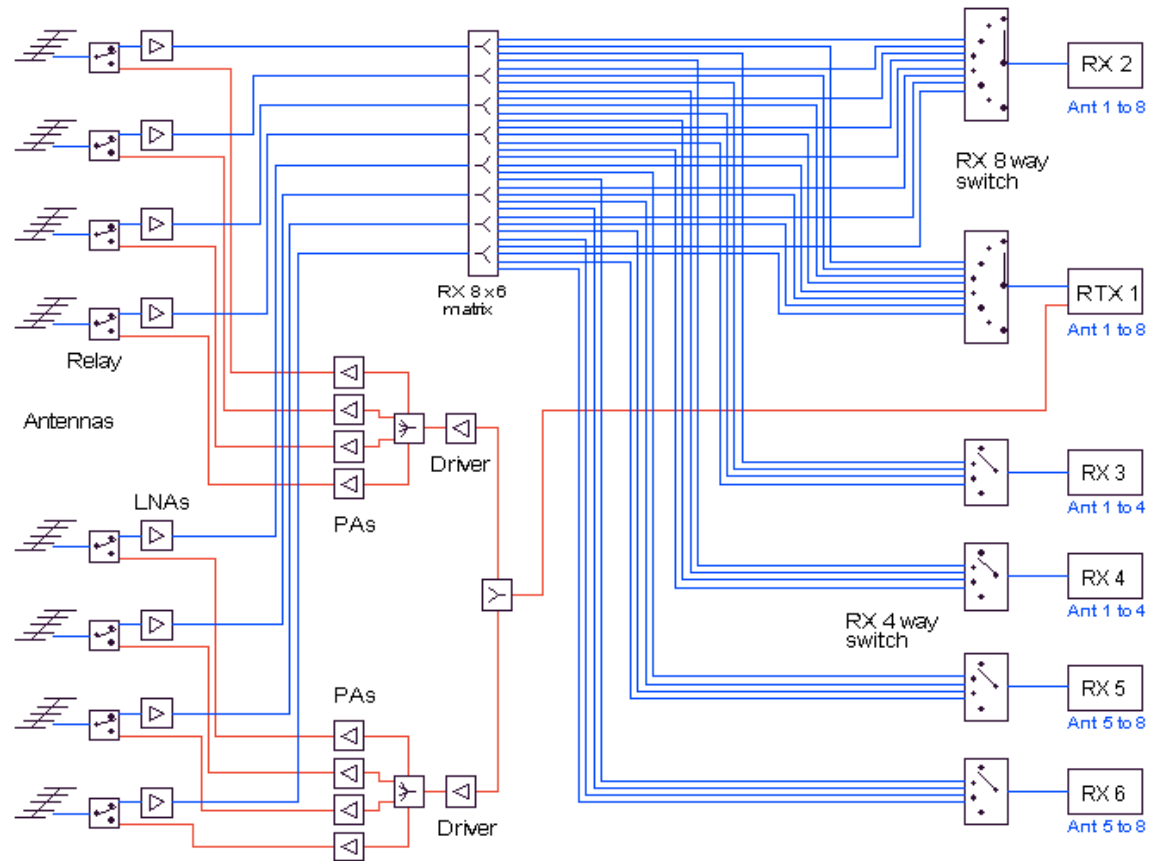
Sněžka 1602 m ASL HK29b



# BIG set up: IO3V, winner 2001

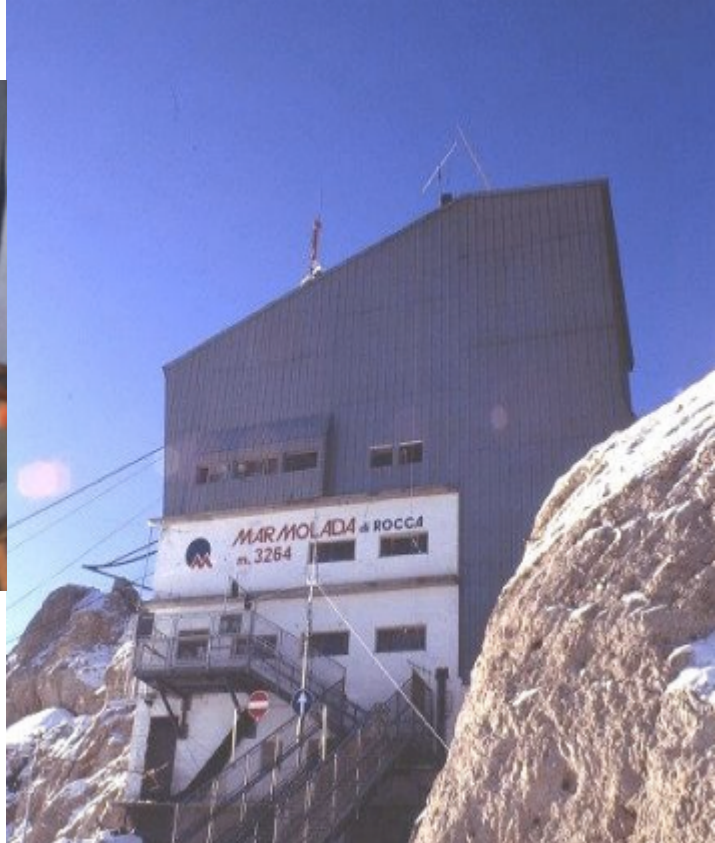
- 3264 m ASL
- 8 x antenna systems
- 8 x PA
- 4 x 2nd RX

Winner with  
987 QSO og  
417,00 points



[BACK](#)

IO3V  
JN56



# DR9A –winner 2006, 2009-2011

- QTH in Schwarzwald  
JN48 ca. 850 m ASL
- 38 m mast with multiple  
ant. systems
- Also winner of the UHF  
contest on 432 and  
1296 MHz from the  
same QTH





# Central European QRM!

OL4A

DM7A



-a potential source of neighbour conflicts 😊



# How could it be possible to win the VHF test from OZ these days?



OZ1DJJ, OZ1FDH, PA5DD, OZ1GER, OZ5BD

# You need:

1. More points than the other stations 😊
2. The right QTH
3. Good equipment
4. Good operators
5. Knowledge of the band and activity
6. Good planning

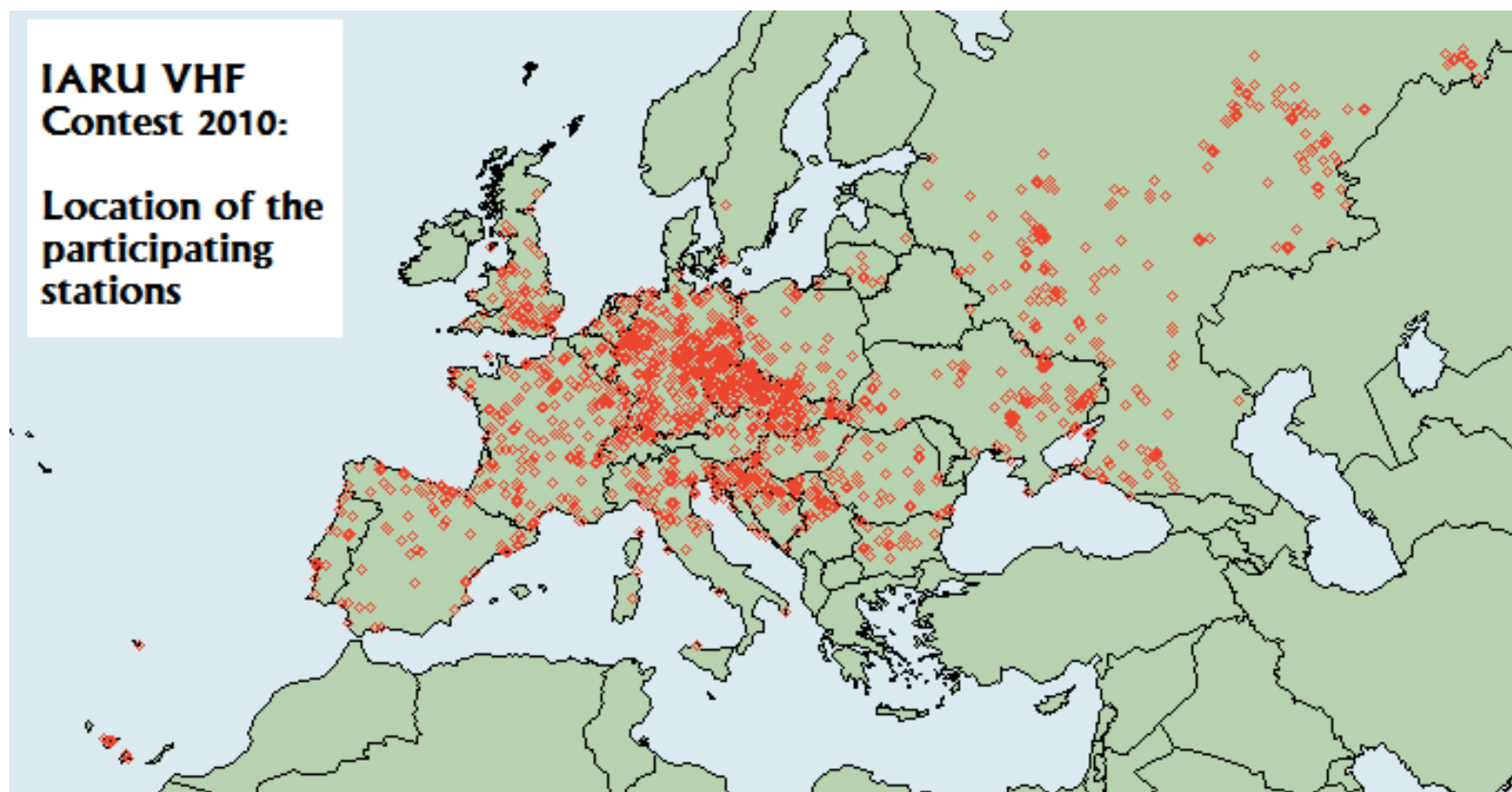
& blood, sweat and tears + LUCK!

# Contest optimisation

***Contest impact* = QTH x *In* Operator x Reliability<sup>2</sup> x  $\sqrt{\text{ERP}}$   
x beamwidth x Ant. gain x sports car effect**

# The activity has moved eastward

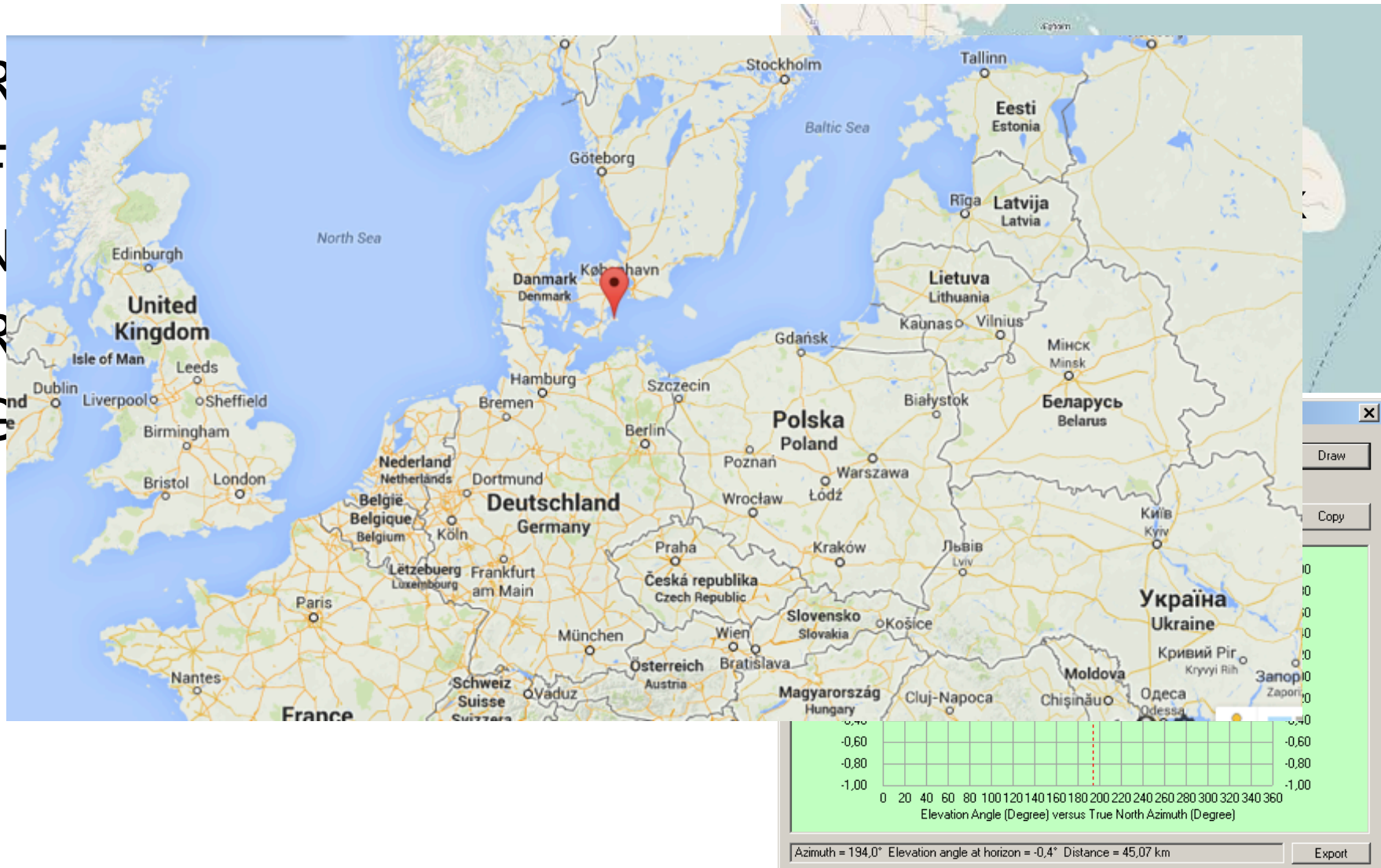
- From OK in 2011 there were 244 logs!! (OZ 1 log ☹)
- More stn from SP, LY, UR
- Lower activity in England and Holland
- Better equipment





# QTH Kongsbjerg, Moen JO64gx

- R
- F
- N
- R
- G



View direction 140-200 deg





# First attempt 2007

OZ1HDF, OZ1DJJ and OZ1FDH



4x4 el Tonna, 2x18 el M2  
661 QSO's 283000 points (error rate 13%)





# Antennas



# Power

- 2007 Assorted generators
- 2008- 30 kw diesel





# Fixing the high voltage cables.....



# Visits by Murphy

- 2007 None
- 2008 Relay melt down
- 2009 None
- 2010 Blown screen supply
- 2011 Blown preamp
- 2012 Antenna crash, faulty ant relay
- 2013 None
- 2014 ?



# Results 2007-2012

	QSO	Points
2007	661	284357
2008	630	283256
2009	664	314557
2010	720	338085
2011	831	417369
2012	662	321517



5P5T 2011 831 QSO  
418,000 points (unchecked)



# Final result 2011

## Section: 145 MHz, Multi Operator

Pl.	Call	Loc	QSOs	Points
1	DR9A	JN48EQ	947	410559
2	5P5T	JO64GX	808	402451
3	DL0GTH	JO50JP	1077	389579


# September 2013


## New operators



# Final result 2013

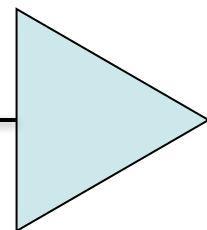
Section: 145 MHz, Multi Operator

	Pl. Call	Loc.	QSOs	Points	-QSOs	Error-%
	1. 5P5T	JO64GX	898	472547	18	2.1
	2. OE1W	JN77TX	1035	443939	30	3.6
	3. DL0GTH	JO50JP	1087	409225	29	3.3
	4. OL7M	JO80FG	869	359162	19	2.3
	5. SN7L	JO70SS	883	355654	20	2.2
	6. OL9W	JN99CL	819	352515	18	3.3
	7. OK7O	JN69OU	924	339520	25	3.4
	8. G8P	JO01QD	745	315738	13	2.0
	9. DR2X	JO40QL	867	309396	26	3.6
	10. OM3W	JN99CH	696	287284	17	2.9





# 5P5T station 2013



4x10 el  
rotor  
(default  
235 deg)

8x3 el  
220 deg

8x3 el  
160 deg

4x6 el  
100 deg

New antenna  
system

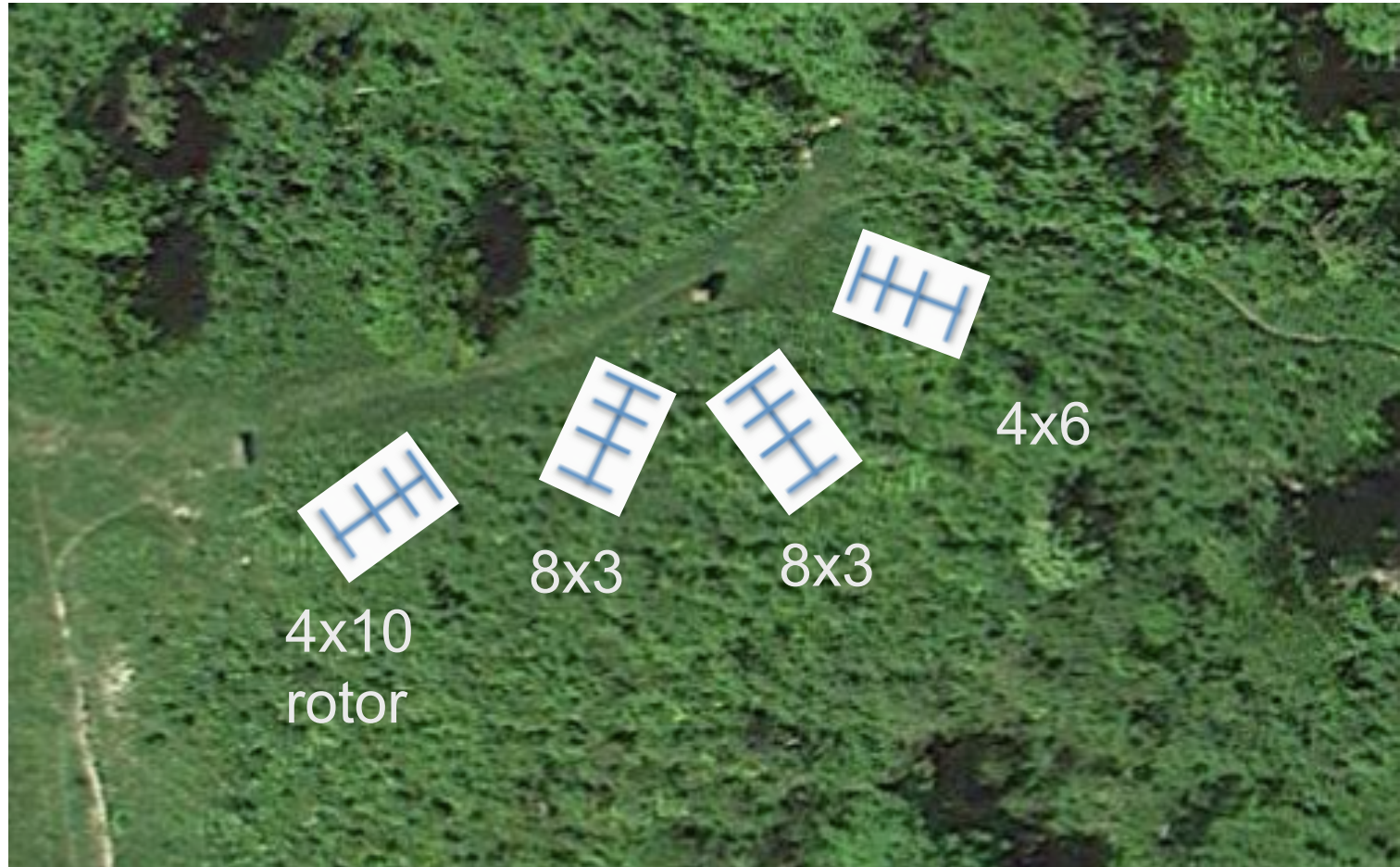
# Antennas

- 4x10 el DK7ZB, 4x6 el OZ5HF, 16x3 el DK7ZB





# Placement of antennas



←→  
20 m

↓  
180 deg

# Operator position

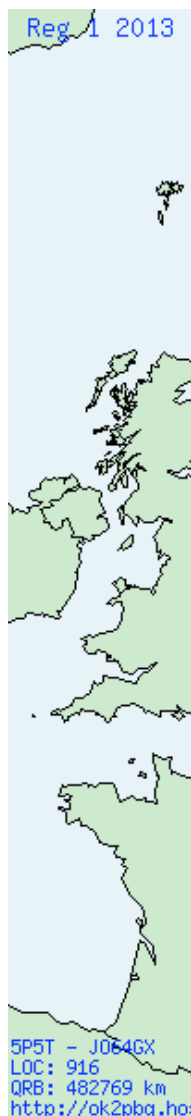


- Horsetrailer (without horse)
- Overview and simplicity
  - Only 1 turnable antenna system
  - Limit the number of buttons, cables and mess
- Rackmounted equipment
- Screens for 1st and 2nd operator



# Facts

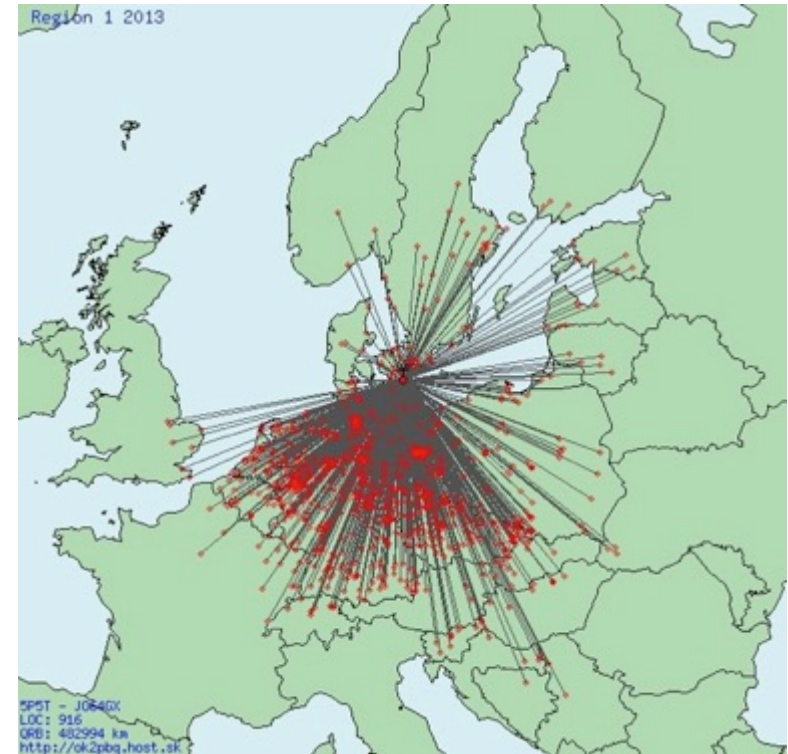
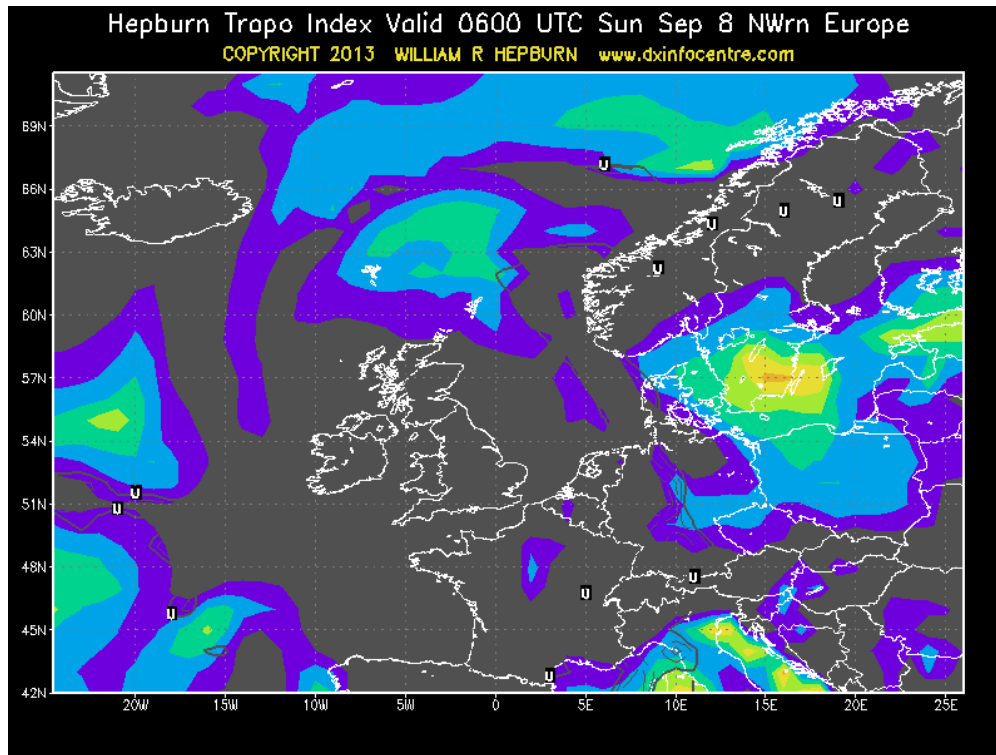
- PA5DD, OZ1DJJ, OZ1GER & OZ1FDH
- 916 QSO
- 482870 points (527/QSO)
- 123 loc
- 25 DXCC
- ODX YT1VP
- 1321 km



## Number of QSOs per DXCC

9A	:	6	UA2	:	2
DL	:	509	UR	:	3
E7	:	1	YL	:	6
ES	:	7	YU	:	2
F	:	20			
G	:	7			
HA	:	7			
HB	:	8			
LA	:	3			
LX	:	1			
LY	:	5			
OE	:	10			
OH	:	3			
OK	:	99			
OM	:	15			
ON	:	13			
OZ	:	19			
PA	:	52			
S5	:	11			
SM	:	40			
SP	:	67			

# Condx were good, but not fantastic



For once we appeared to be in the sweet spot.  
Main competitors were DL0GTH and OE1W

5P5T rx at [UY4W](#) KN18OT, 1039 km

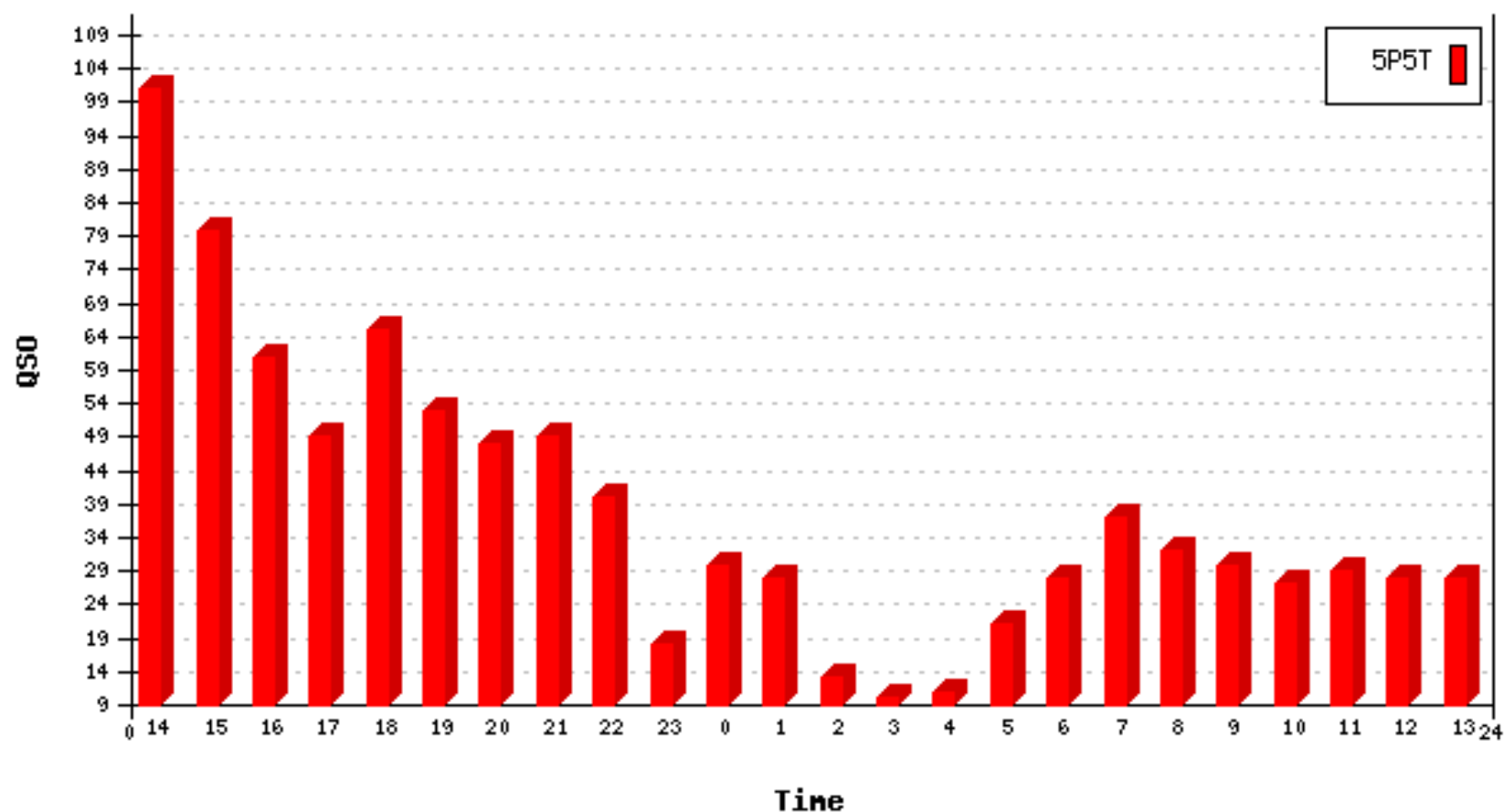


# QSO/hour, good activity during night

VHF Contest 2013 144 MHz

VHFContest.net

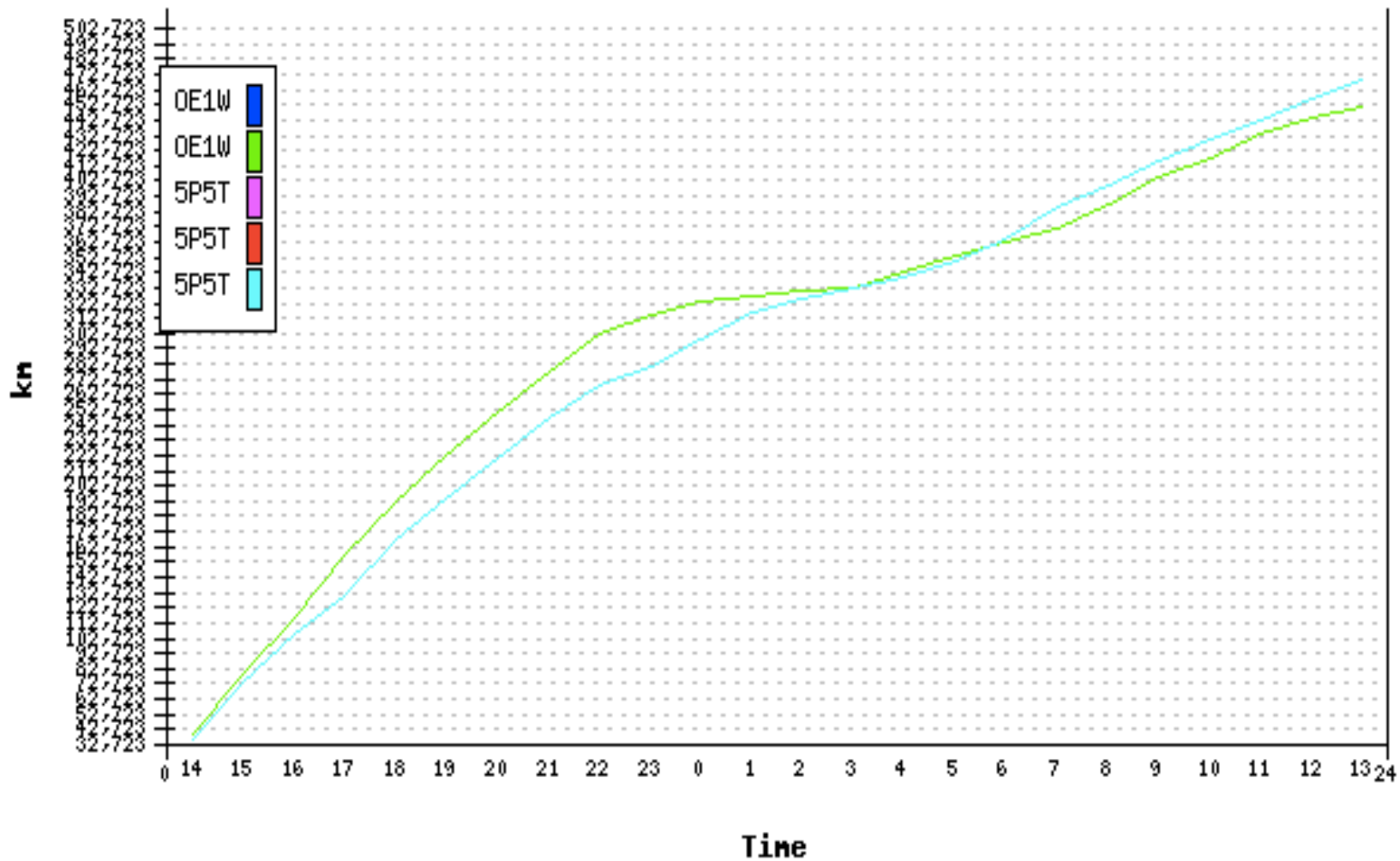
QSO/hod



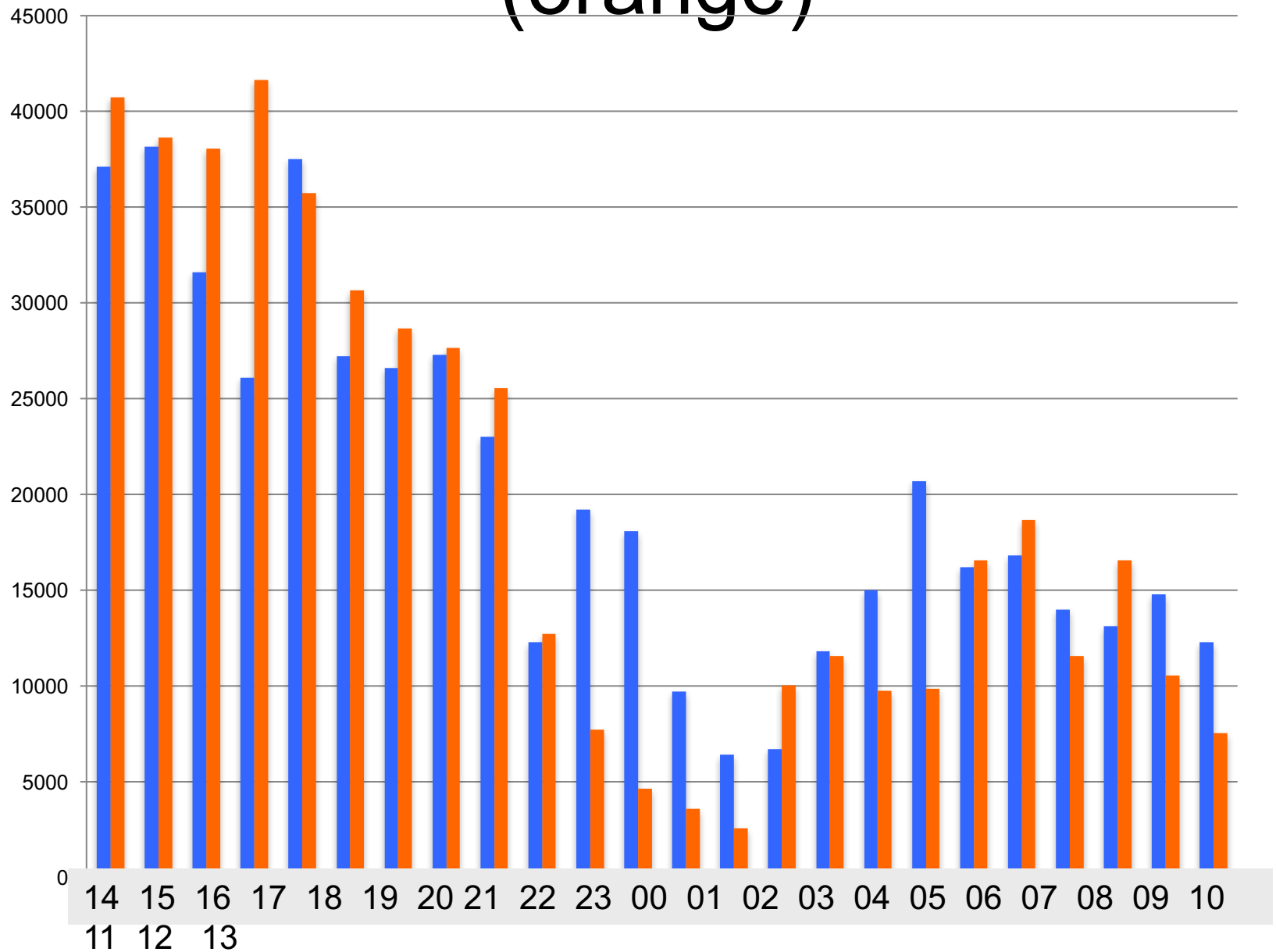


# OE1W had the lead until 0600

km/hour



# Points/time 5P5T (blue) vs. OE1W (orange)



# Equipment





# Setup & operating



# Food!

- Chili con carne a'la HAM
- PA heating of butter pastry ☺





# What does it take to win from up north?

- A good QTH
- Simplicity for the operating position
- A very attentive 2nd operator
- Equipment 99,9% reliable
- At least 16 dB ant gain, wide horizontal angle
- Hard work!
- Endurance (every year!)
- Luck (condx and Murphy)
- Fried fish with parsly sauce





# Video saturday evening



# The end

- There is no other VHF contest as the september contest!
- You may win or loose, but the fun of the effort and teamwork is worth it all.
- Guest operators, new members and visitors are **VERY** welcome
- CU! in the next contest

