

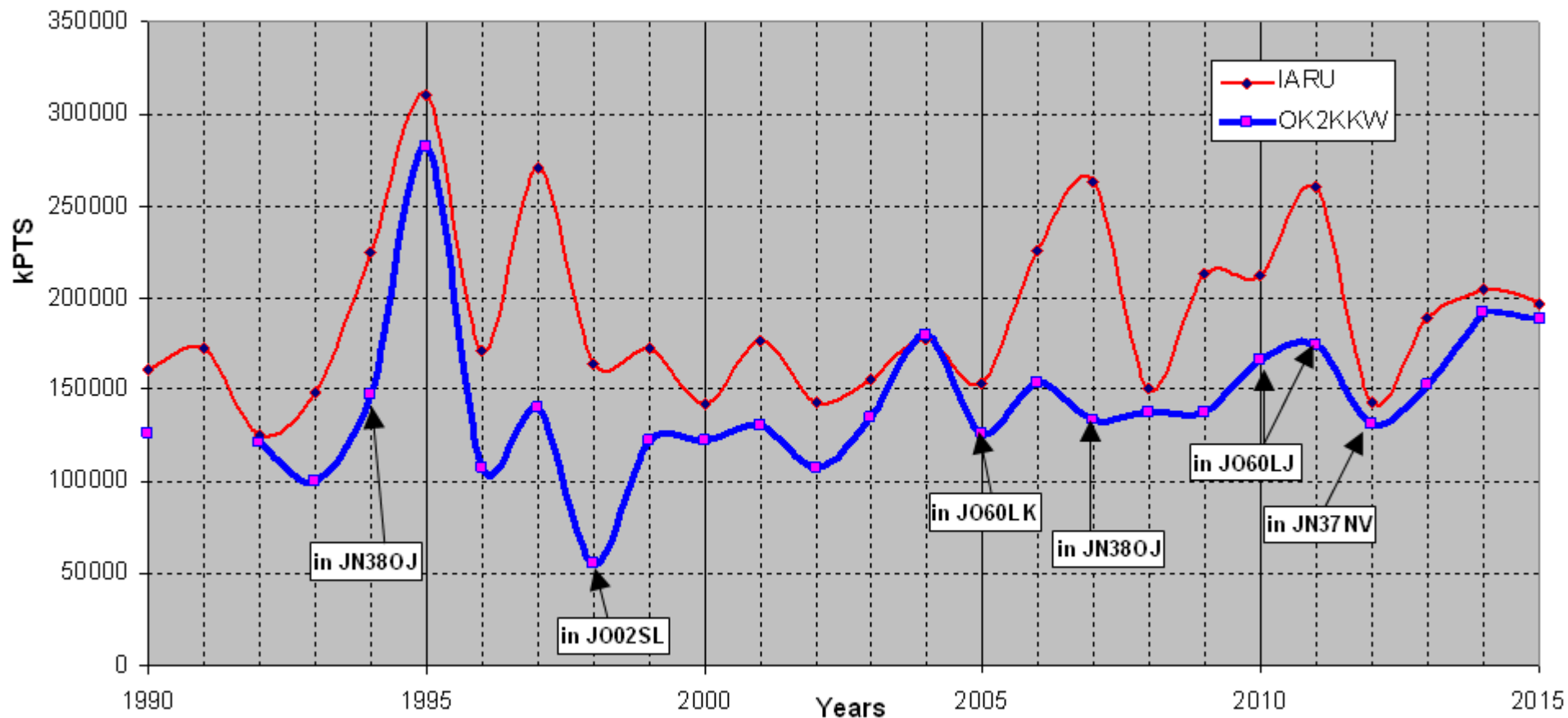
# *UHF Contest 2015 – comparison of OK2A with DL0GTH & DR9A & OL3Z*

**432 MHz**



# 432 MHz – results of OK2A (OK2KKW)

In comparison with the winner of IARU R1 MULTI



# 432 MHz – antennas

	OK2A (25m coax)	DL0GTH (15m coax)	DR9A (50m coax)	OL3Z (40m coax)
From 360°	total 133°	total 133°	total 126°	total 166°
system 1	33el K1FO [17,7dBd 17°]	4x13el flex [18,2 dBd 28°]	6x11el ZB [20,5dBd 31°]	8x 9el ZB [17,7dBd 36°]
system 2	4x10el W [17,7dBd 36°]	4x13el flex [18,2 dBd 28°]	6x11el ZB [20,5dBd 31°]	8x 9el ZB [17,7dBd 36°]
system 3	4x10el W [17,7dBd 36°]	2x 25jxx70 [19,0 dBd 23°]	6x11el ZB [20,5dBd 31°]	8x 9el ZB [17,7dBd 36°]
system 4	12x6el ZB [20,0dBd 44°]	8xdQUAD [12 dBd 54°] ?	4x16el ZB [20,5dBd 24°]	8x 9el ZB [17,7dBd 36°]
system 5			8x23el ZB [24,5dBd 9°]	4x22el M2 [21,2dBd 11°]
system 6				8x22el M2 [24,0dBd 11°]

Gain of antennas and angle of first lobe for -3dB was calculated due to VK3UM EME calculator, the calculation is trying to achieve real figures as much as possible so I took in sum as well as attenuation of H1000 cables used for phasing.

## For the info (for TX):

6x38el M2 = 25,7dBd      4x38el M2 = 23,6dBd      3x38el M2 = 22,3dBd  
 2x38el M2 = 21,1dBd      1x38el M2 = 18,6dBd      8x10el wimo = 20,2dBd

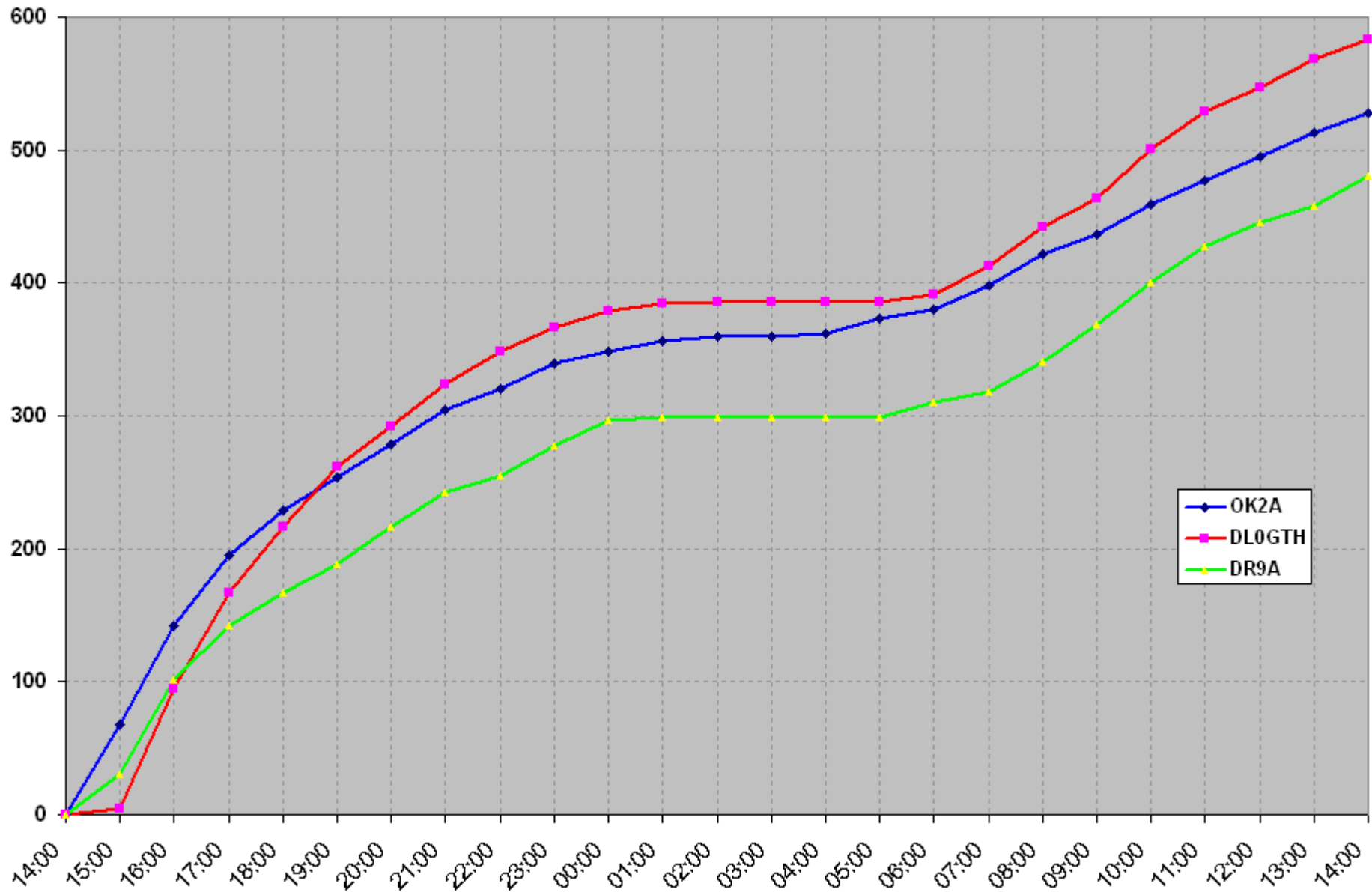
2x the same ant = real gain of ~2,5dB  
 gain of 10el WIMO = gain of 9el DK7ZB  
 20dB = 100x bigger radiated power  
 23dB = 200x bigger radiated power

## Attenuation for 700W in the shack:

25m H1000 koaxu = 2,1dB = 432W  
 25m 1/2" koaxu = 1,2dB = 531W  
 25m 7/8" koaxu = 0,6dB = 610W

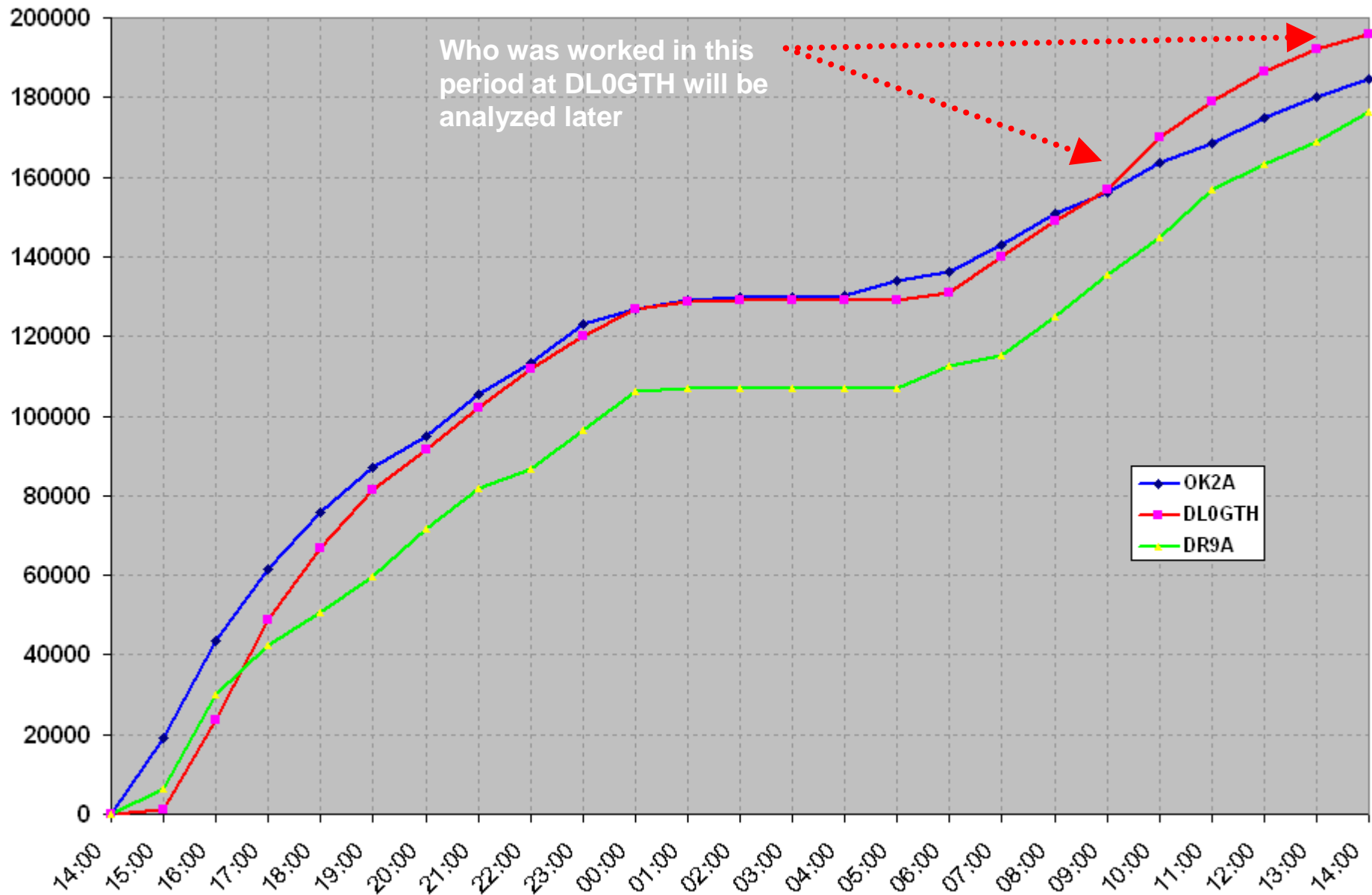
# 432 MHz – number of QSOs

UHFC 2015



# 432 MHz – number of points

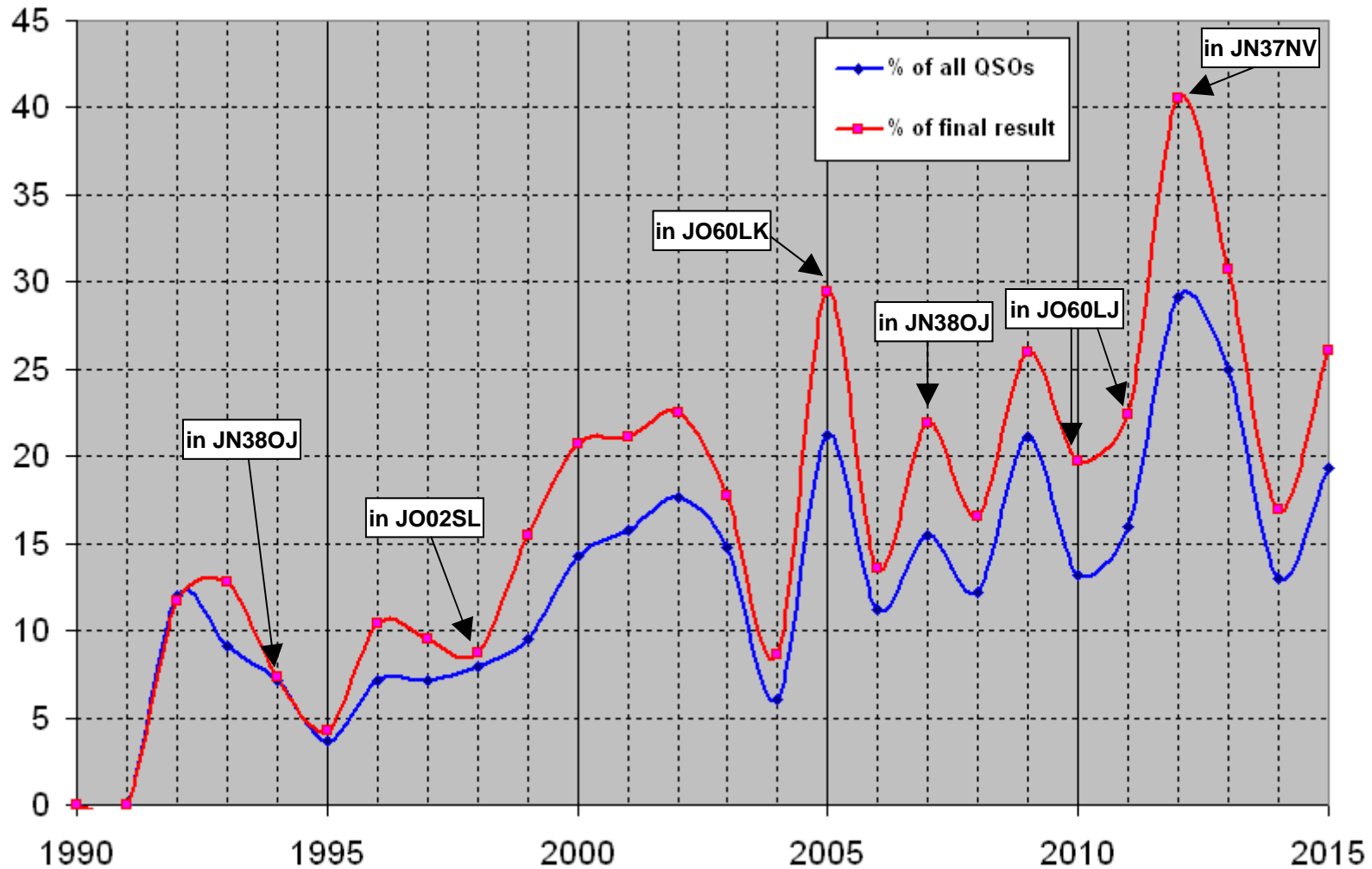
UHFC 2015



# UHF/SHF Contest – 432 MHz CW

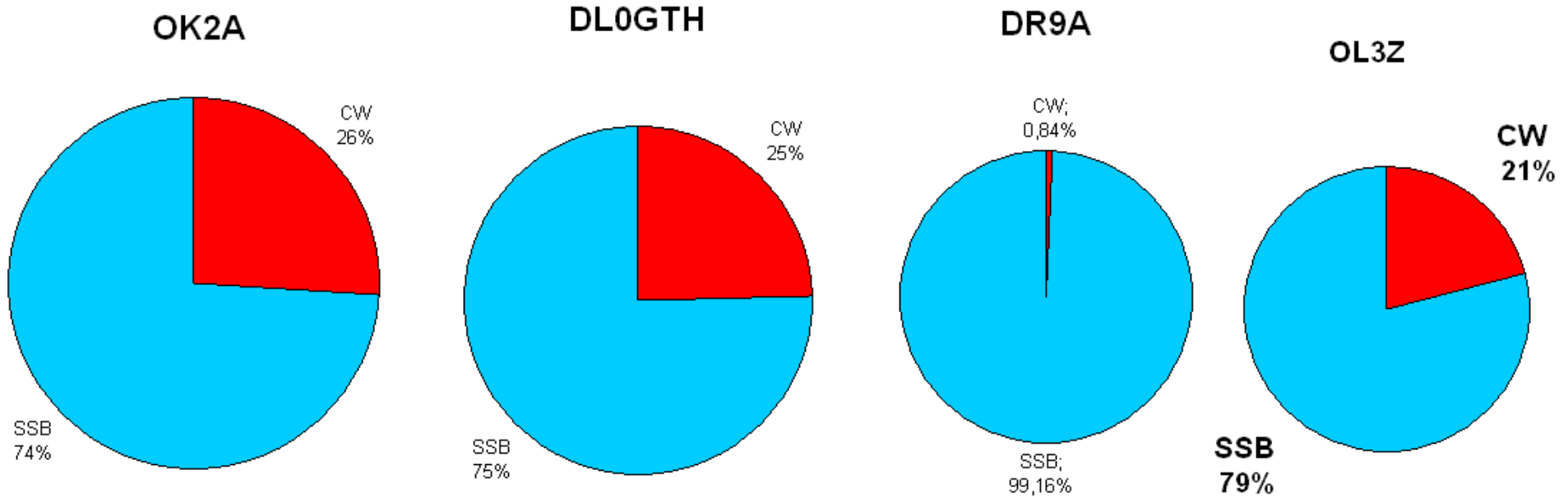
OK2A

- % of points for CW QSOs related to the final result
- % of points for CW QSO related to the total number of all QSOs
- less % CW QSO = better tropo condx or better QTH



# UHF/SHF Contest – 432 MHz CW

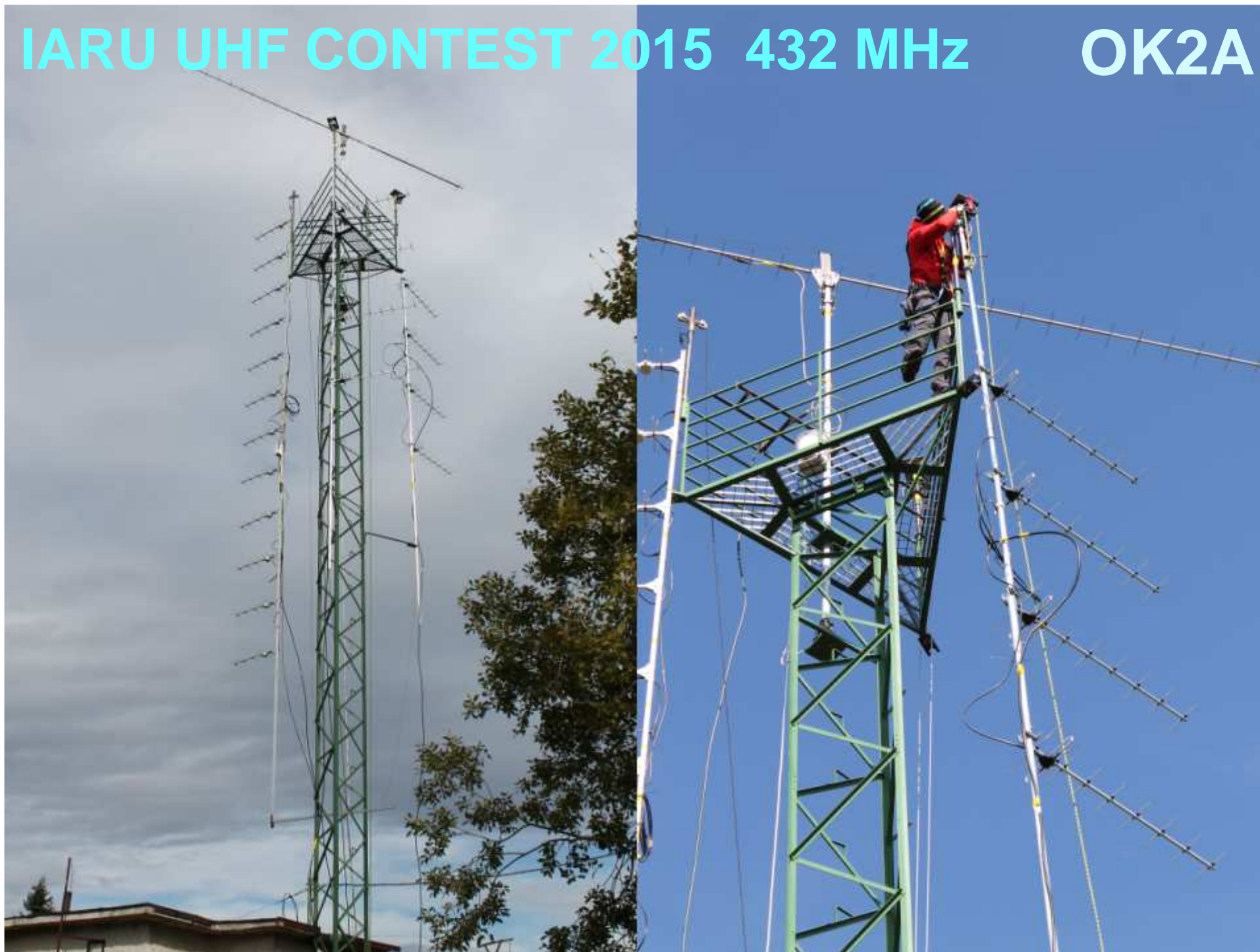
- % of points related to CW QSOs from the final result





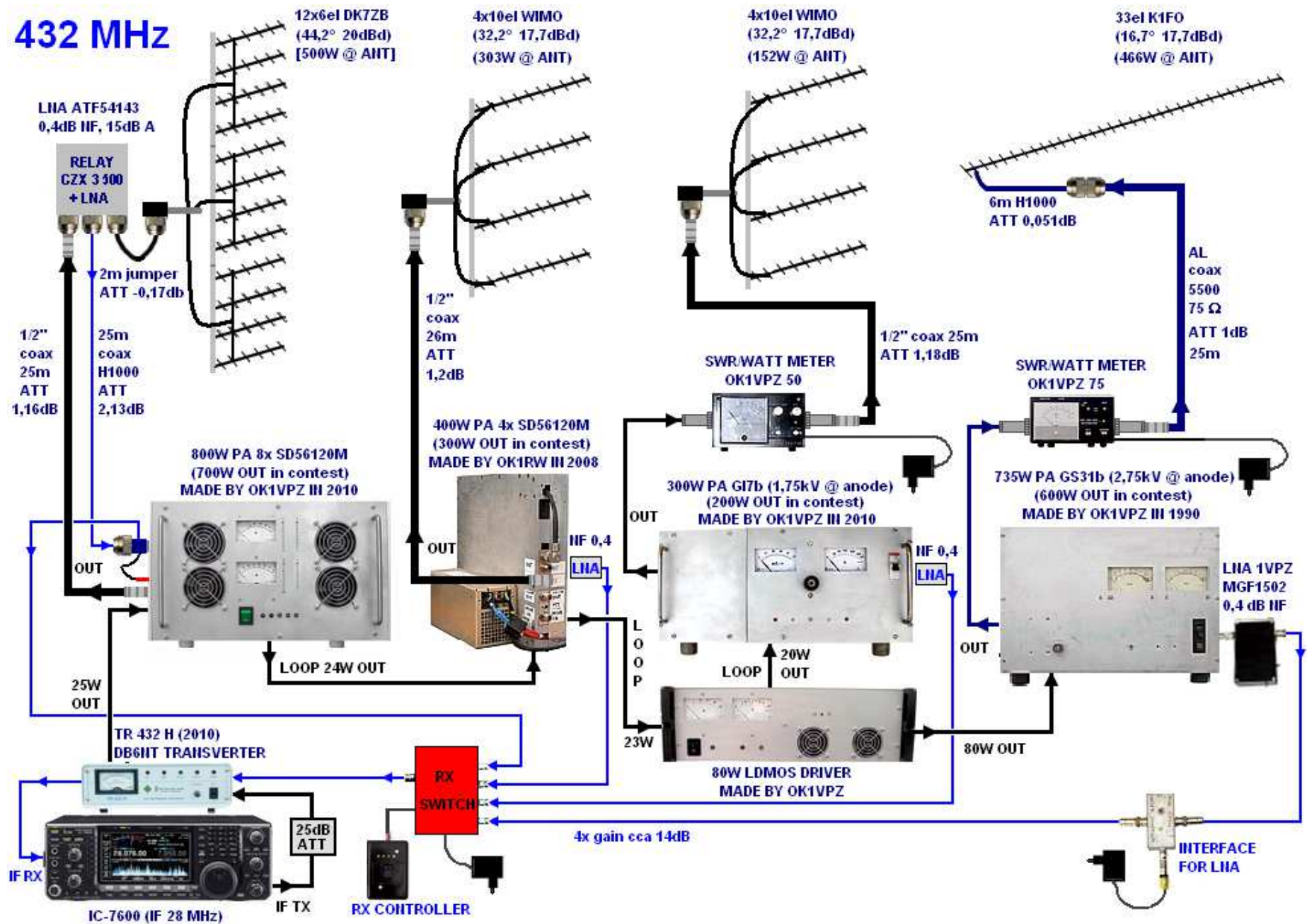
IARU UHF CONTEST 2015 432 MHz

OK2A



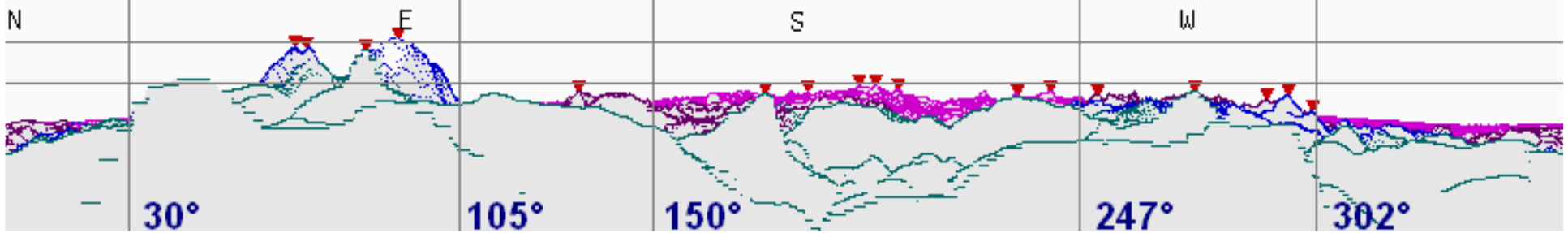
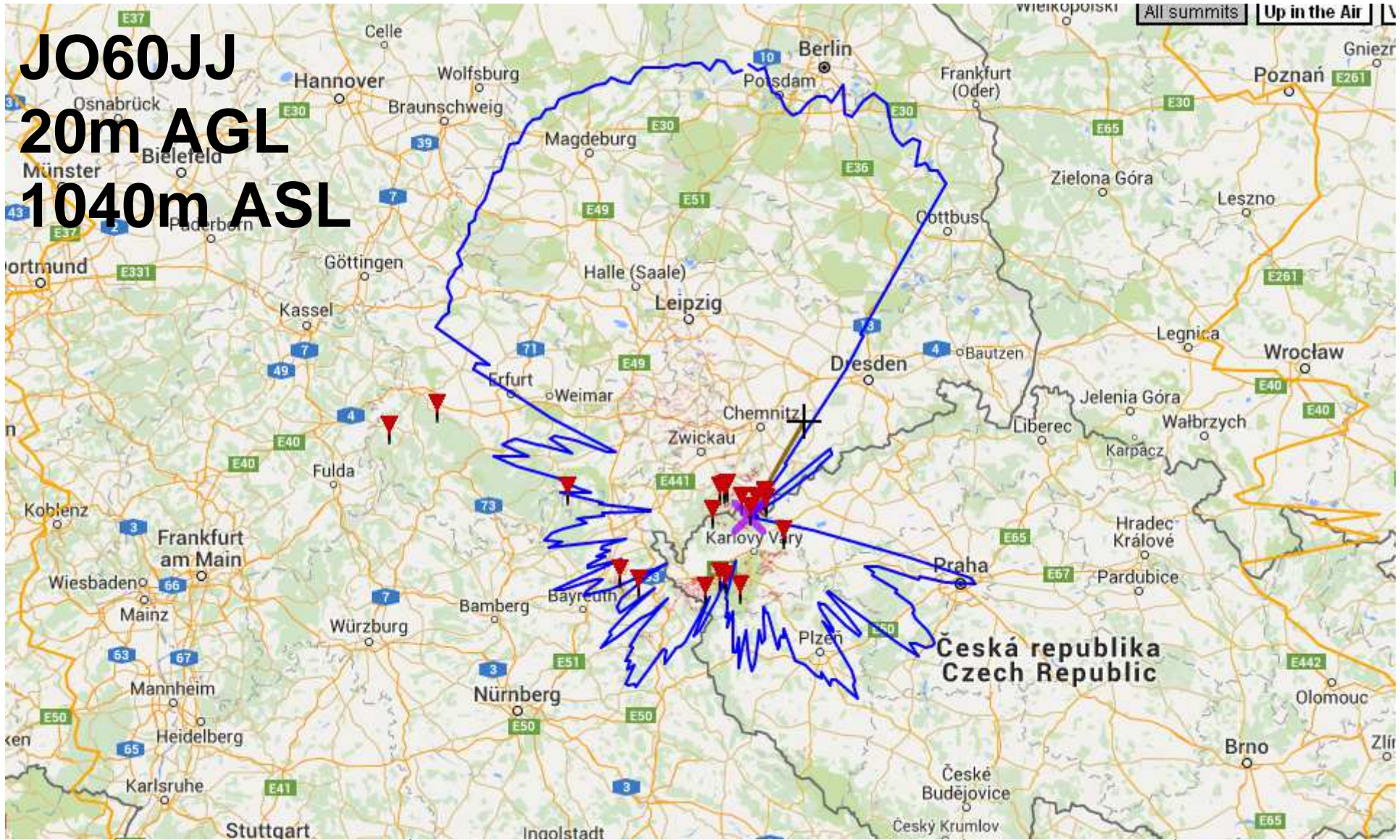


# IARU UHF CONTEST 2015 432 MHz OK2A



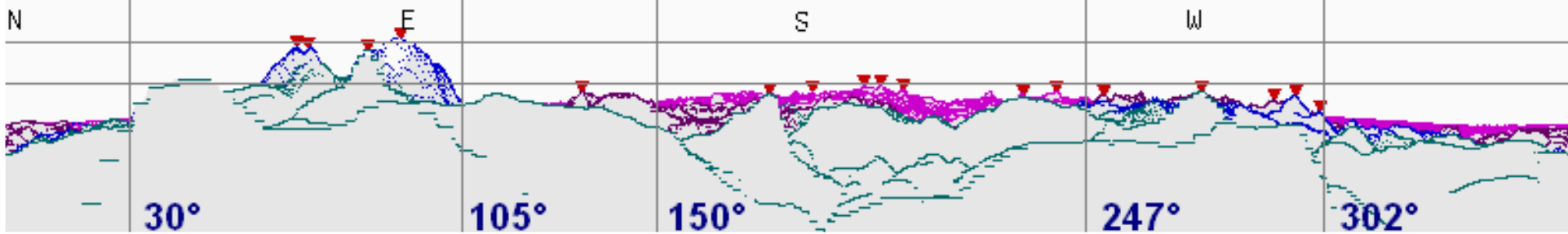
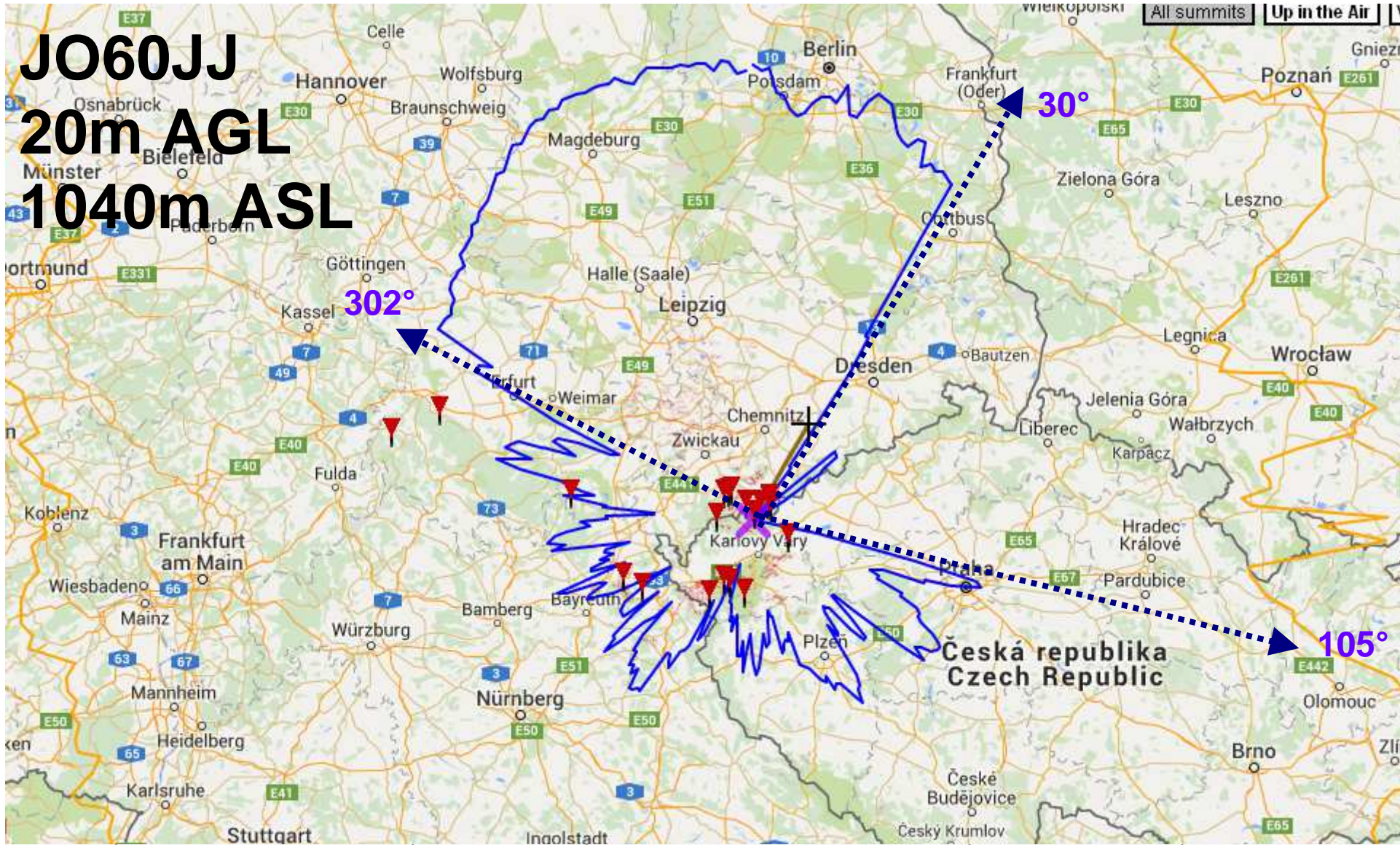


**JO60JJ**  
**20m AGL**  
**1040m ASL**





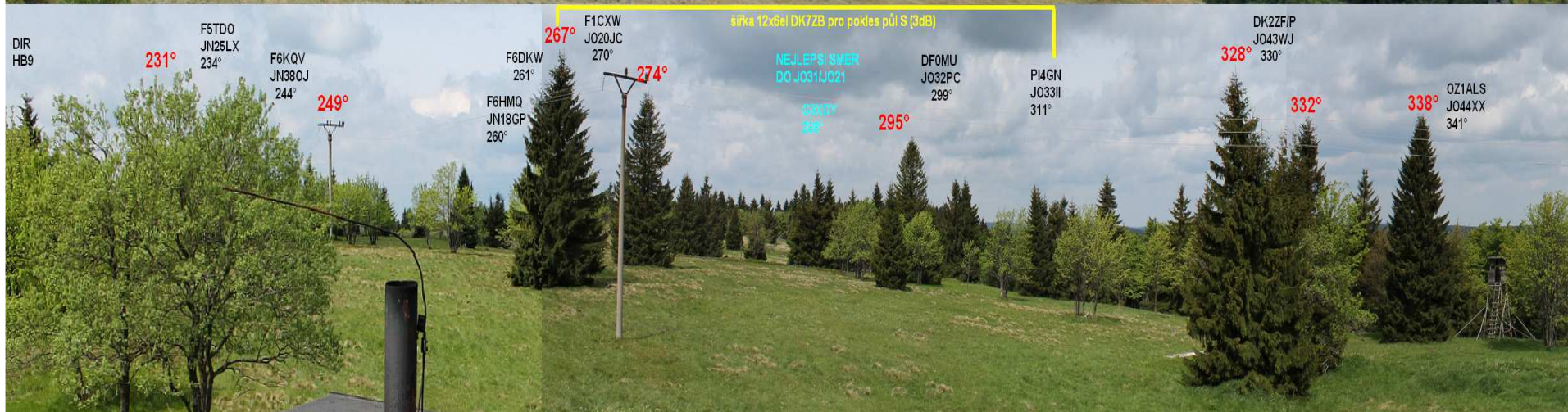
**JO60JJ**  
**20m AGL**  
**1040m ASL**





**JO60JJ**  
**20m AGL**  
**1040m ASL**

**The West**  
**5m AGL / 18m AGL**



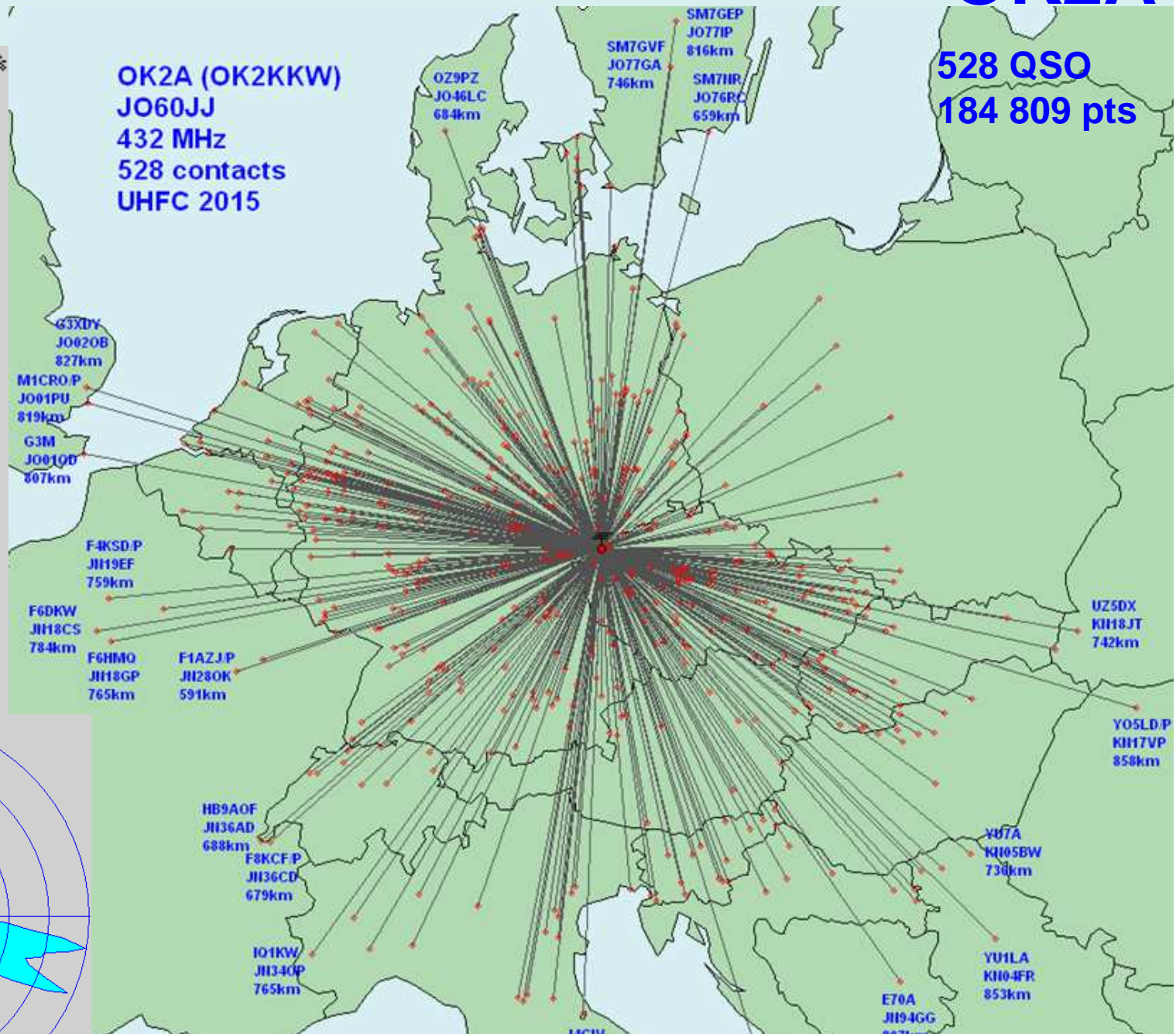


# IARU UHF CONTEST 2015 432 MHz OK2A

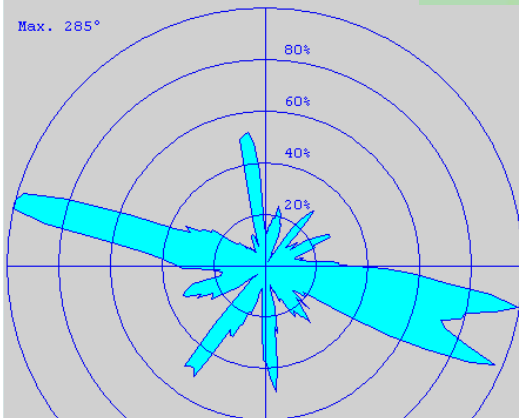
268	x	DL	71796	38%
85	x	OK	17050	9%
20	x	I	13093	7%
19	x	PA	10393	5%
22	x	OM	9731	5%
15	x	S5	7686	4%
16	x	SP	6506	3%
9	x	F	5801	3%
9	x	9A	5642	3%
10	x	HG	5532	2%
9	x	OZ	5461	2%
10	x	HB	5123	2%
12	x	OE	3967	2%
7	x	ON	3955	2%
4	x	YU	3004	1%
4	x	SM	2778	1%
3	x	YO	2574	1%
3	x	G	2453	1%
2	x	UR	1457	0%
1	x	E7	807	0%

**OK2A (OK2KKW)**  
**JO60JJ**  
**432 MHz**  
**528 contacts**  
**UHFC 2015**

**528 QSO**  
**184 809 pts**



Max. 285°



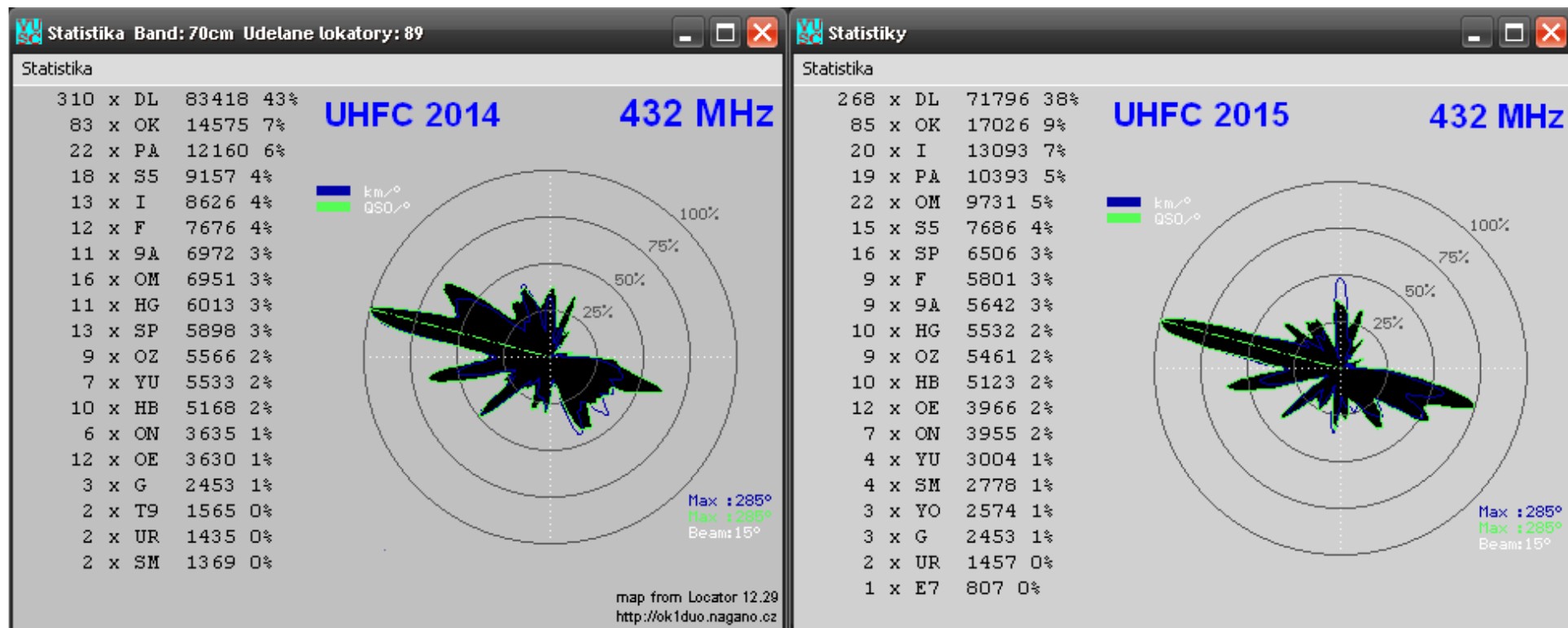




# IARU UHF CONTEST 2015 432 MHz

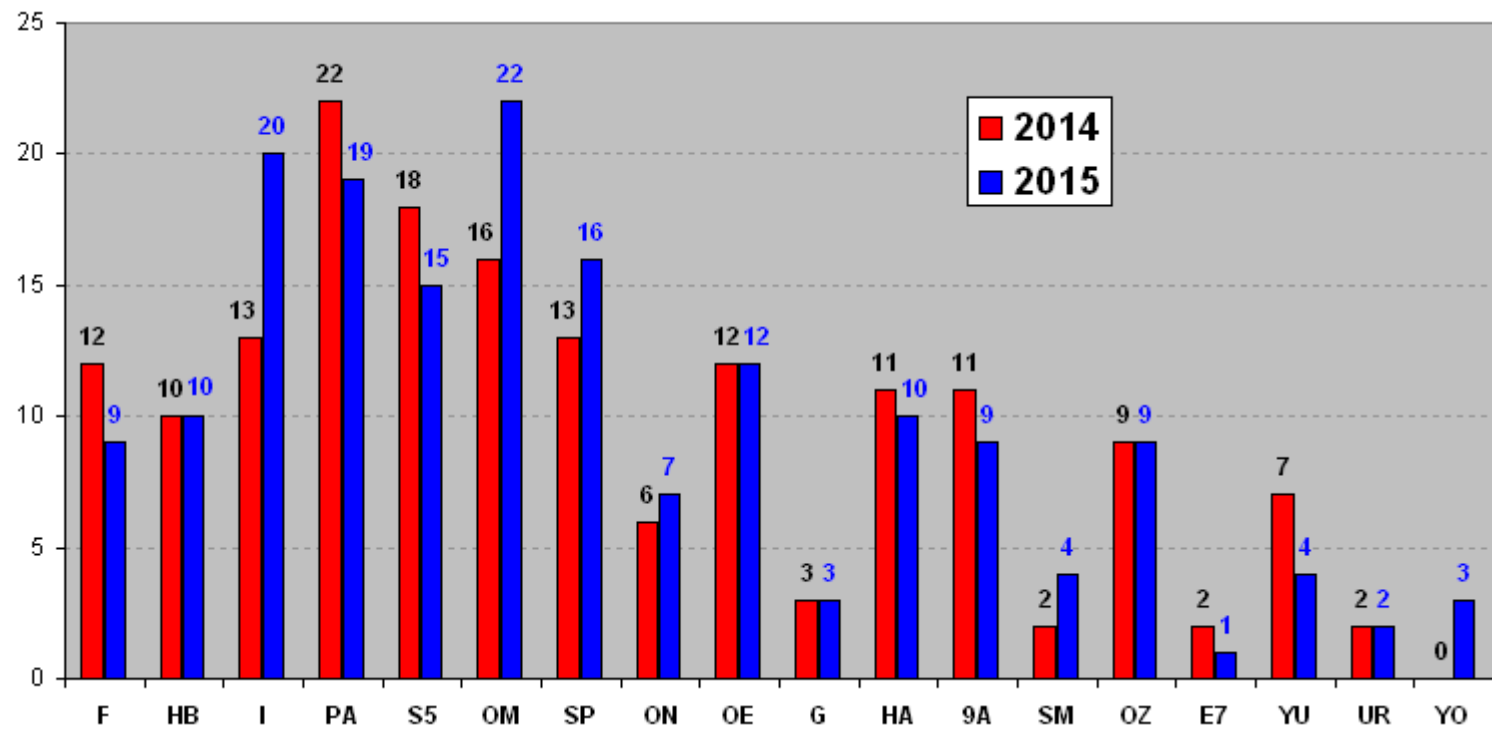
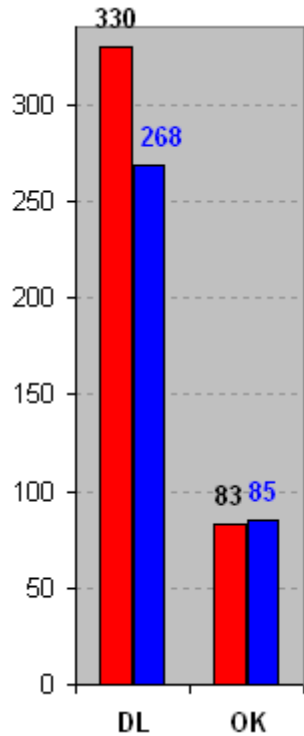
# OK2A

## OK2A DXCC UHFC 2014 / UHFC 2015



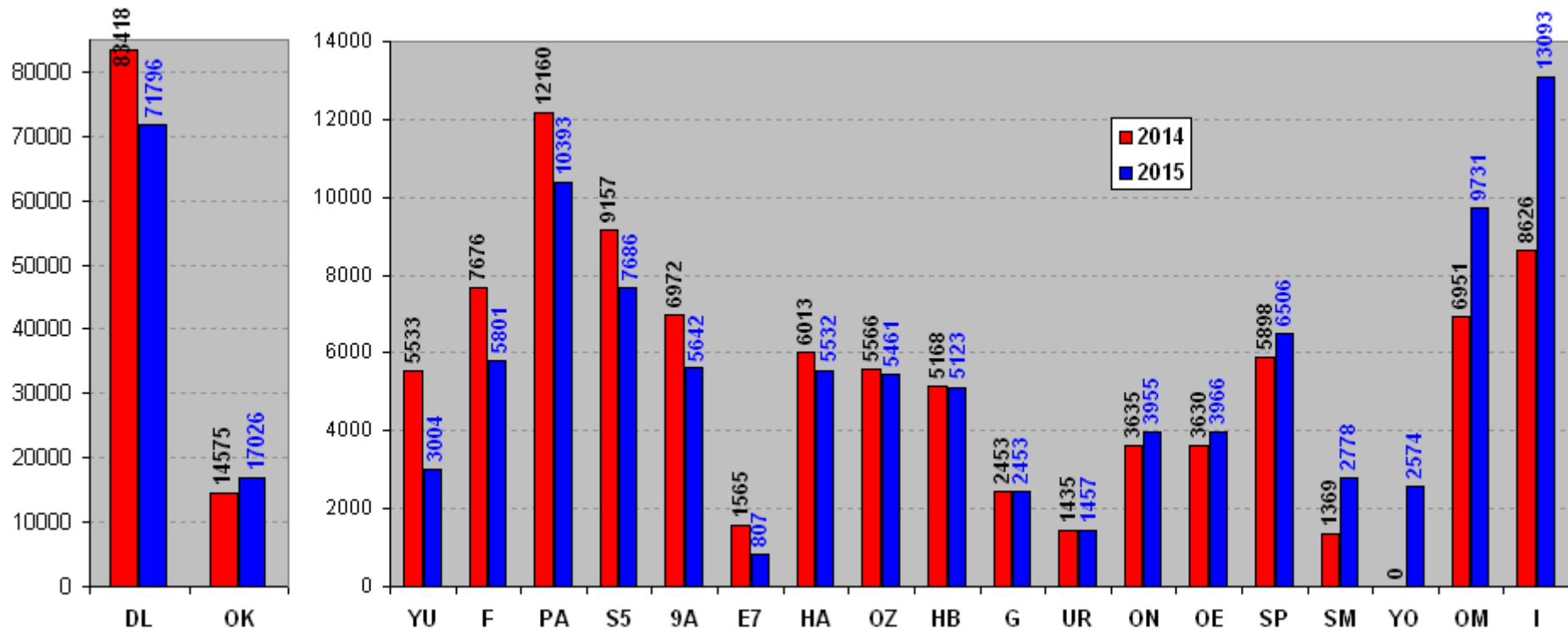
# IARU UHF CONTEST 2015 432 MHz

OK2A's number of QSOs / DXCC UHFC 2014 / UHFC 2015



# IARU UHF CONTEST 2015 432 MHz

## OK2A's points / DXCC UHFC 2014 / UHFC 2015

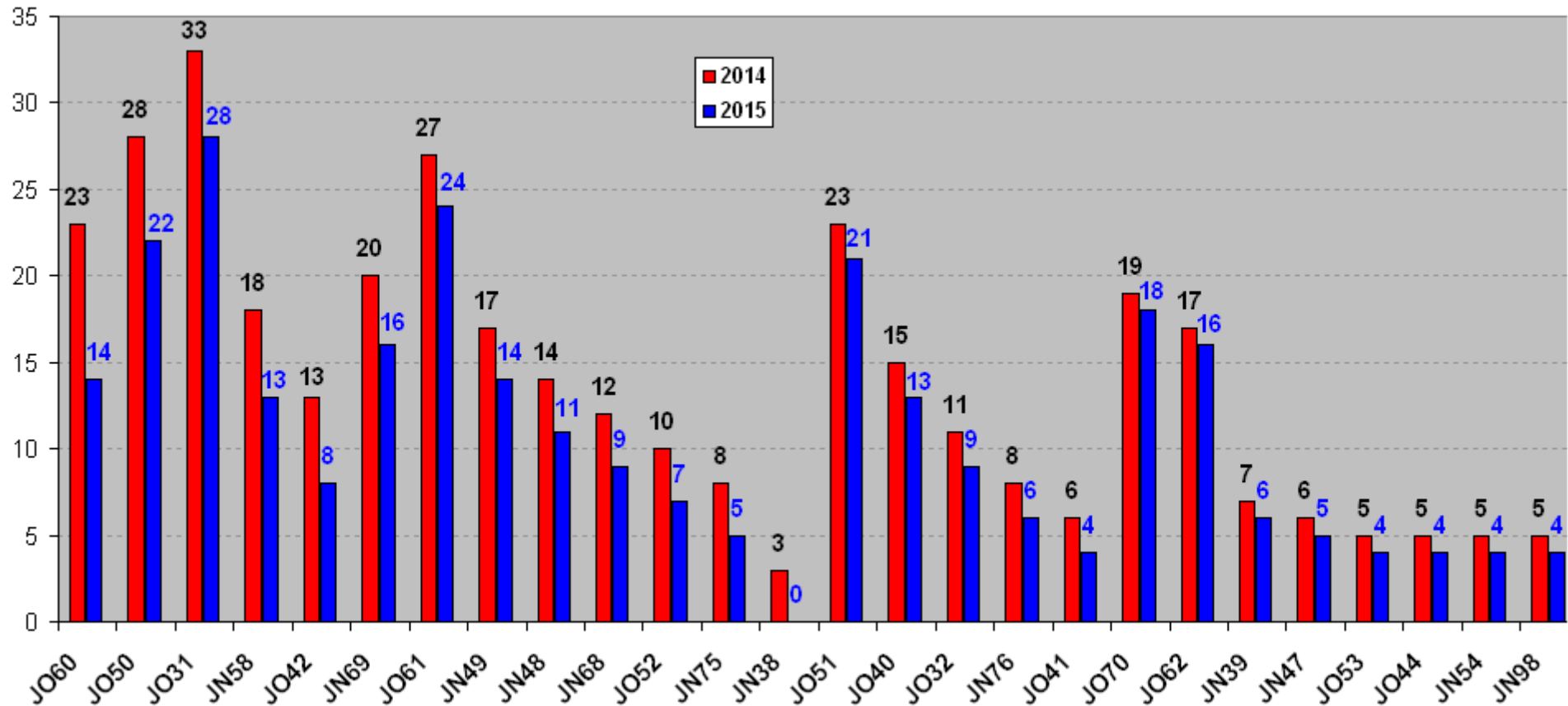


	2014	2015	rozdil
DL	83418	71796	-11622
YU	5533	3004	-2529
F	7676	5801	-1875
PA	12160	10393	-1767
S5	9157	7686	-1471
9A	6972	5642	-1330
E7	1565	807	-758
HA	6013	5532	-481
OZ	5566	5461	-105
HB	5168	5123	-45

	2014	2015	rozdil
G	2453	2453	0
UR	1435	1457	22
ON	3635	3955	320
OE	3630	3966	336
SP	5898	6506	608
SM	1369	2778	1409
OK	14575	17026	2451
YO	0	2574	2574
OM	6951	9731	2780
I	8626	13093	4467

# IARU UHF CONTEST 2015 432 MHz

2014 & 2015: the comparison of worked stations from each big LOC (sorted by the LOC where we lost the most of points)





# IARU UHF CONTEST 2015 432 MHz

# DR9A



New 5<sup>th</sup> direction  
4x16el DK7ZB  
[20,5dBd 24°]



IARU UHF CONTEST 2015 432 MHz

DR9A



8x23el DK7ZB  
gain = 24,5 dBd  
1<sup>st</sup> lobe for -3dB = 8,8°





# IARU UHF CONTEST 2015 432 MHz DR9A





IARU UHF CONTEST 2015 432 MHz

DR9A

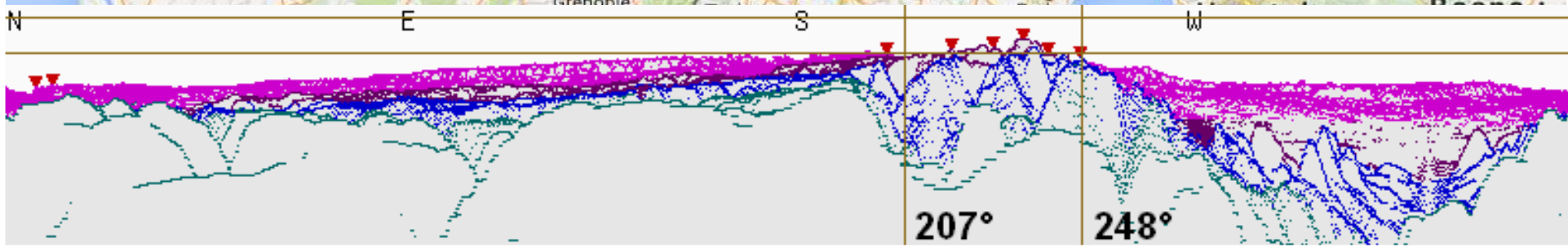
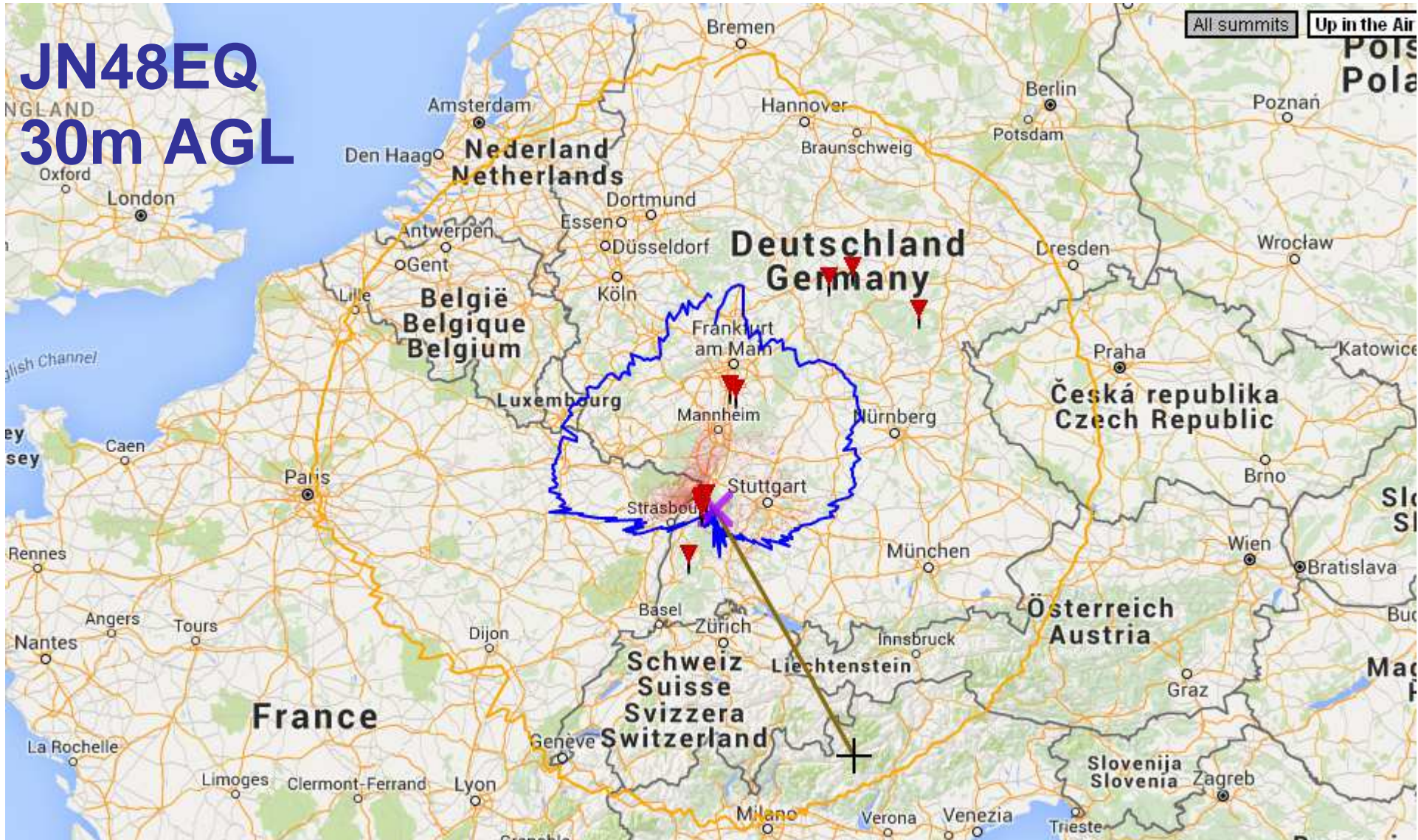
JN48EQ

1029m ASL





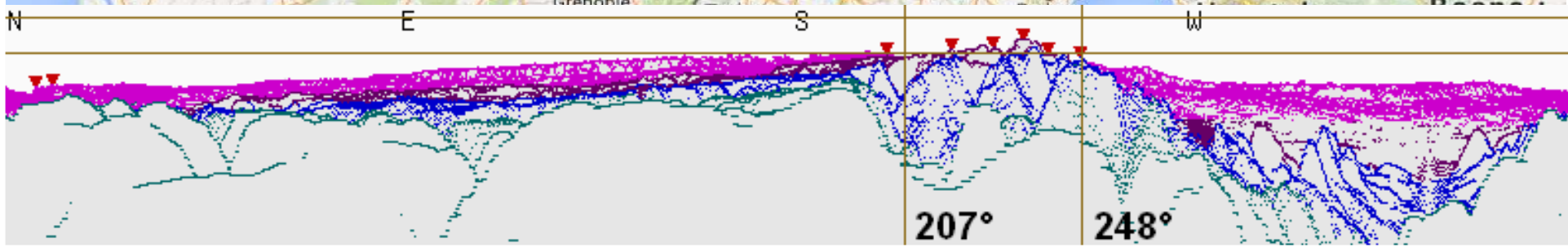
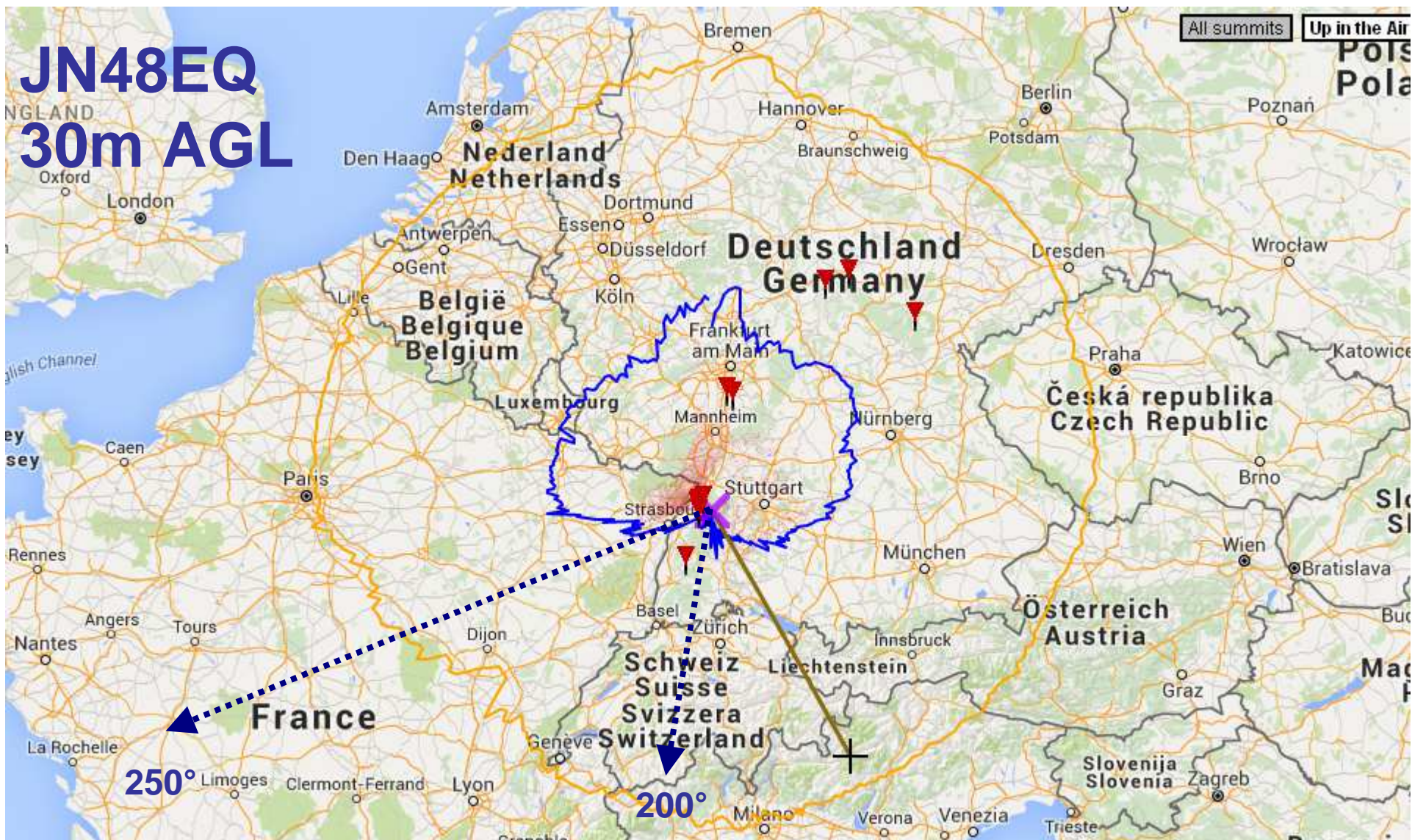
# JN48EQ 30m AGL





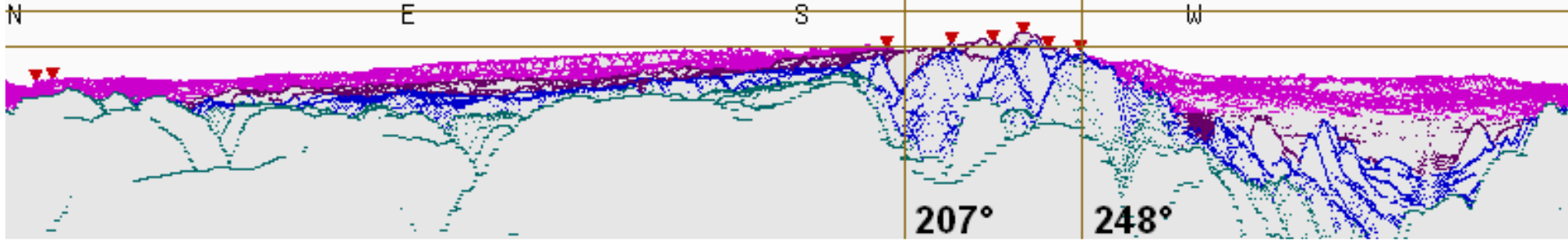
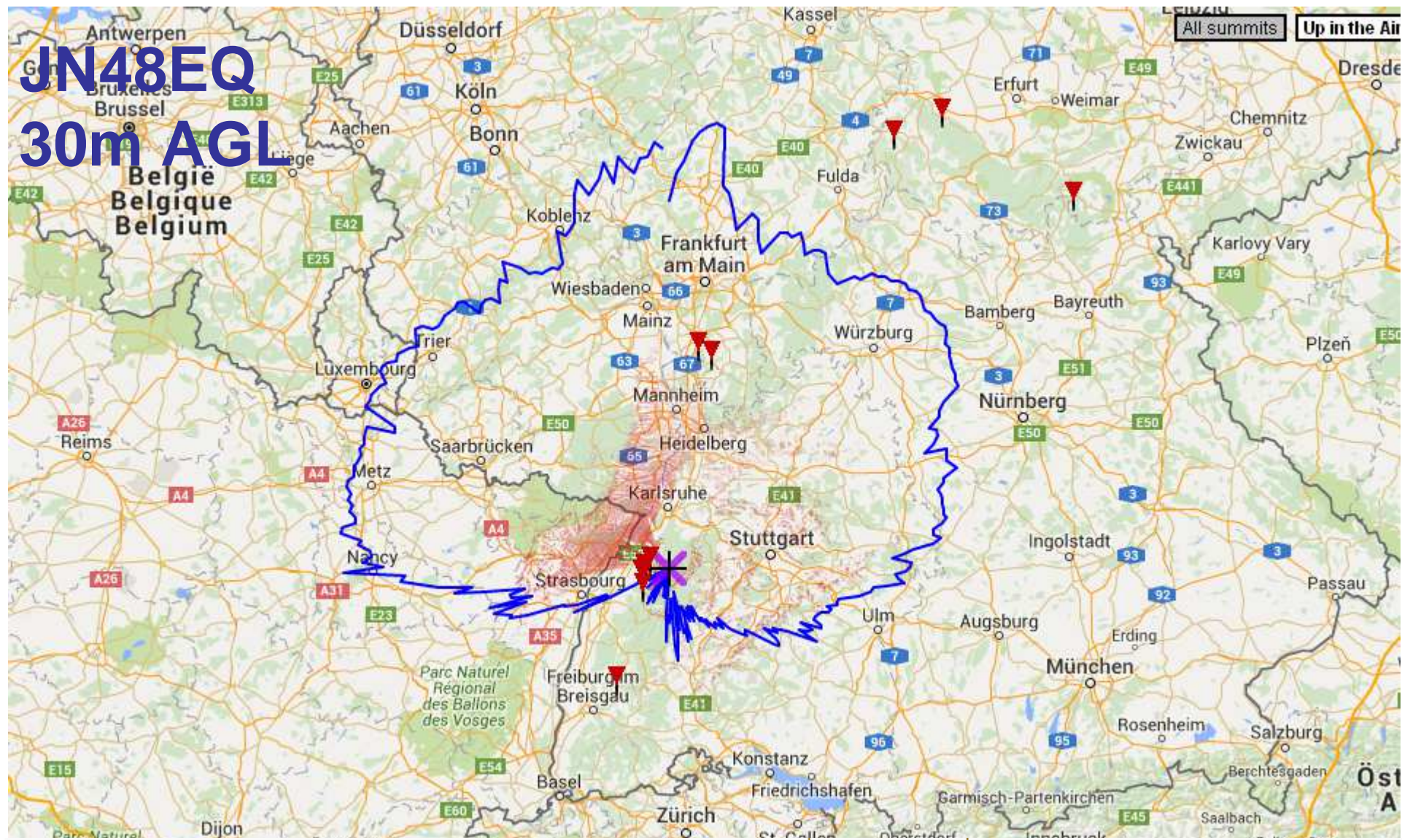
All summits Up in the Air

# JN48EQ 30m AGL



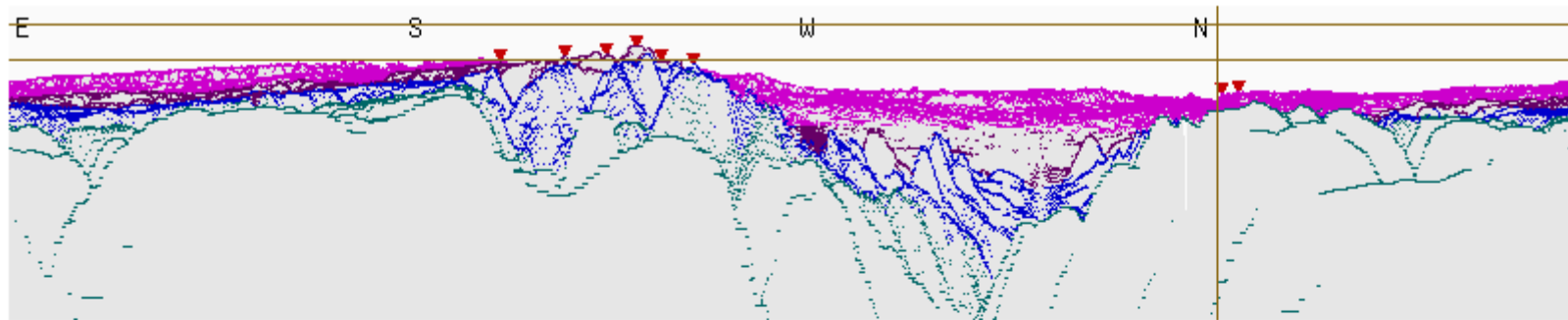


JN48EQ  
30m AGL



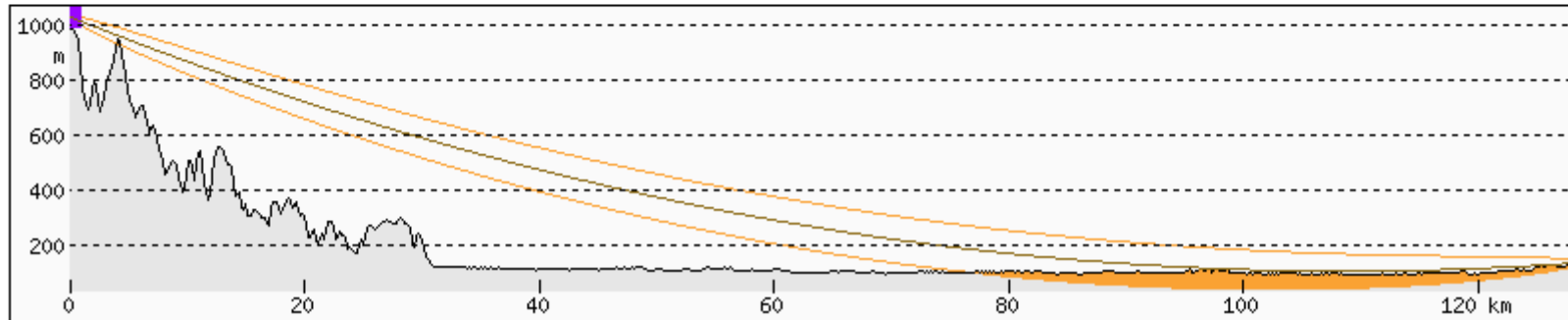
All summits Up in the Air

# JN48EQ ->>>> QTF 0 30m AGL



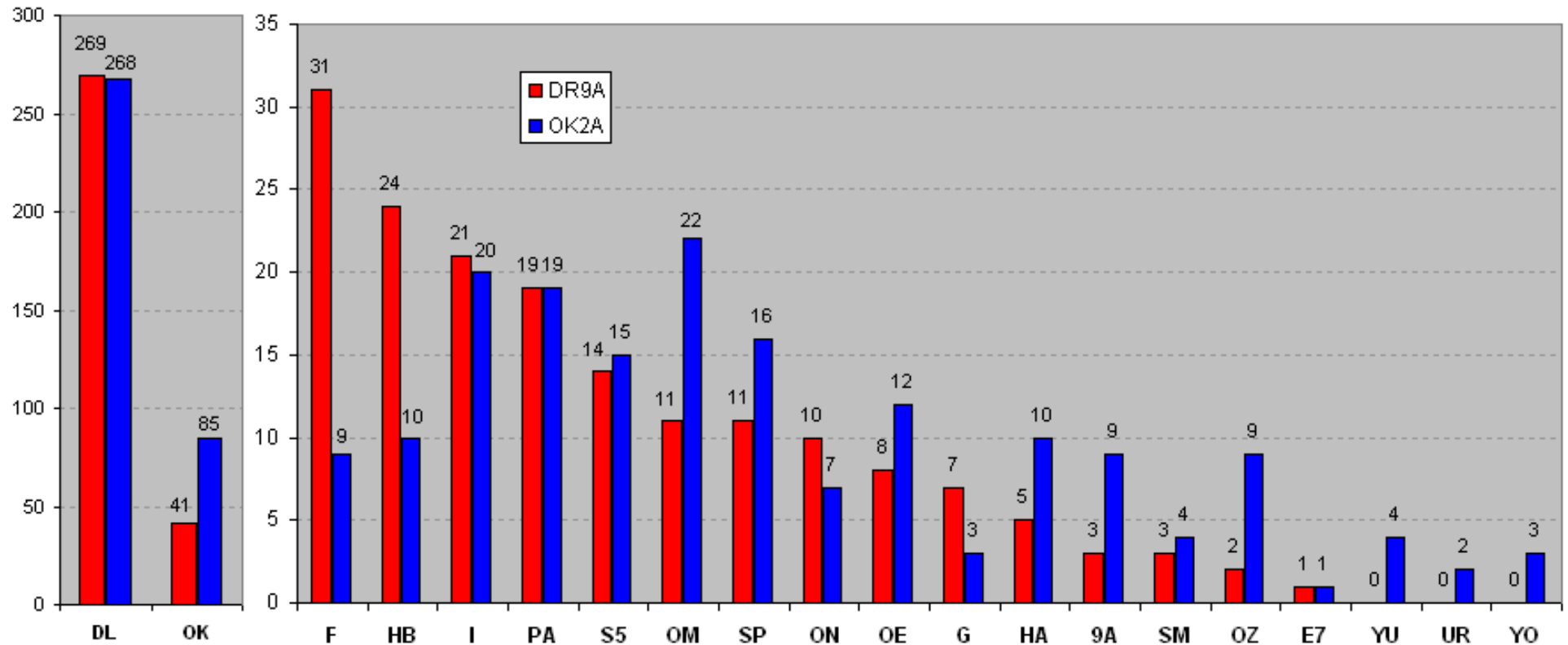
(vertical scale exaggerated 8.5x)

show 0° and 1° alt



# IARU UHF CONTEST 2015 432 MHz

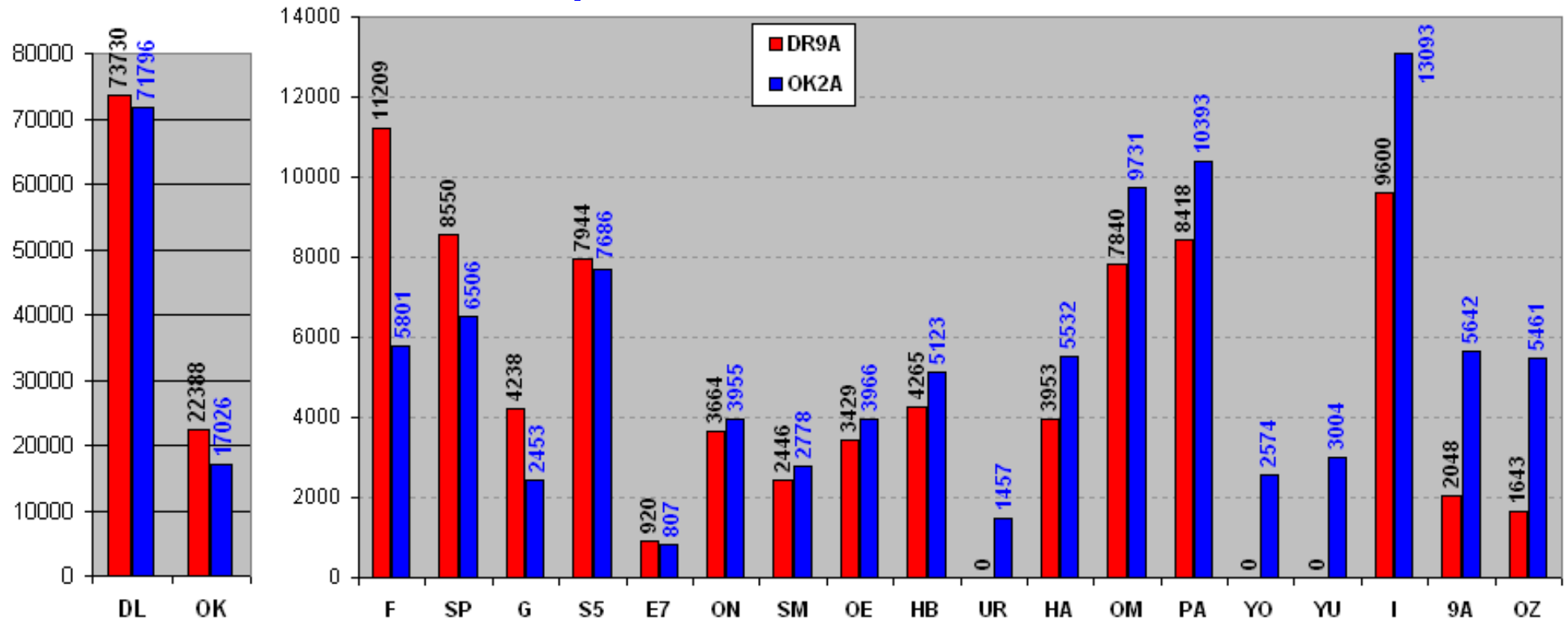
The number of QSOs / DXCC **DR9A** / **OK2A**





# IARU UHF CONTEST 2015 432 MHz

The points / DXCC **DR9A** / **OK2A**



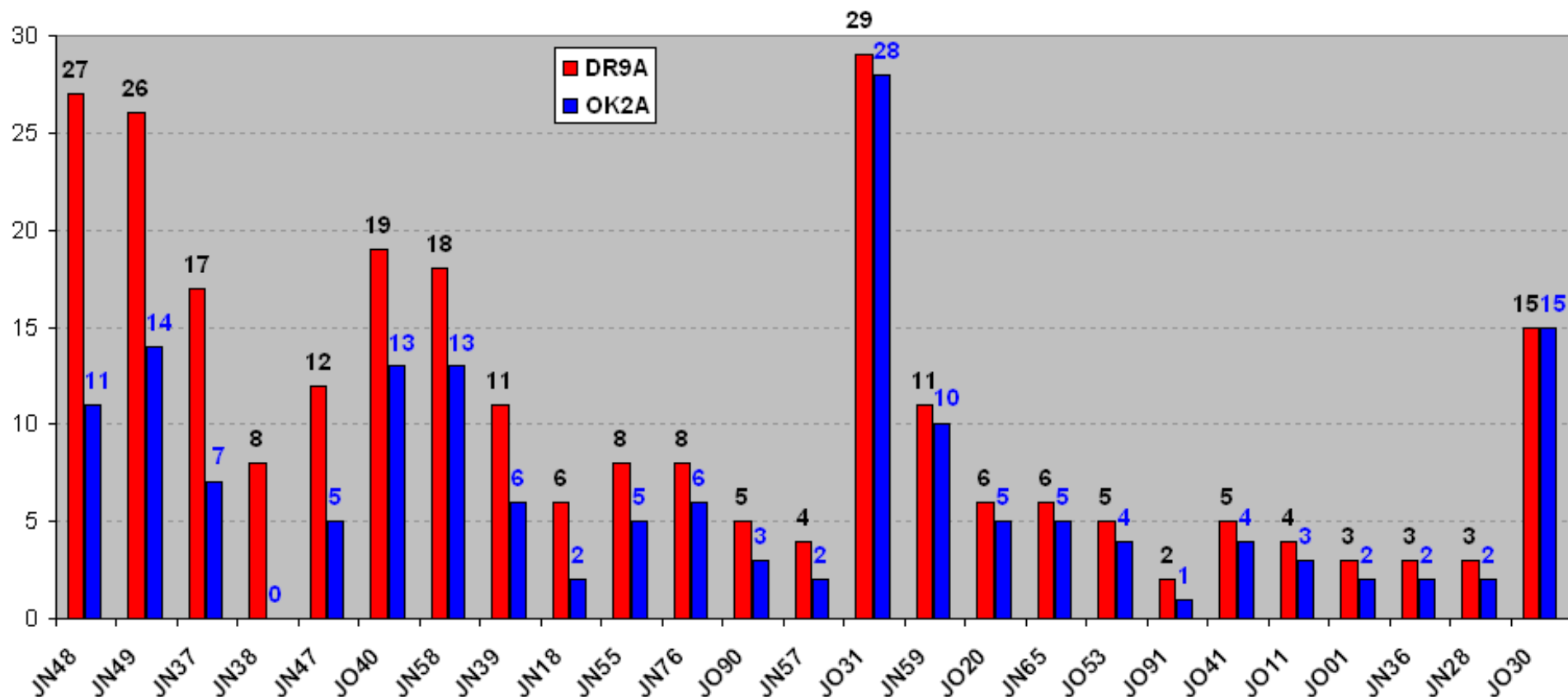
	DR9A	OK2A	rozdil
F	11209	5801	-5408
OK	22388	17026	-5362
SP	8550	6506	-2044
DL	73730	71796	-1934
G	4238	2453	-1785
S5	7944	7686	-258
E7	920	807	-113
ON	3664	3955	291
SM	2446	2778	332
OE	3429	3966	537

	DR9A	OK2A	rozdil
HB	4265	5123	858
UR	0	1457	1457
HA	3953	5532	1579
OM	7840	9731	1891
PA	8418	10393	1975
YO	0	2574	2574
YU	0	3004	3004
I	9600	13093	3493
9A	2048	5642	3594
OZ	1643	5461	3818



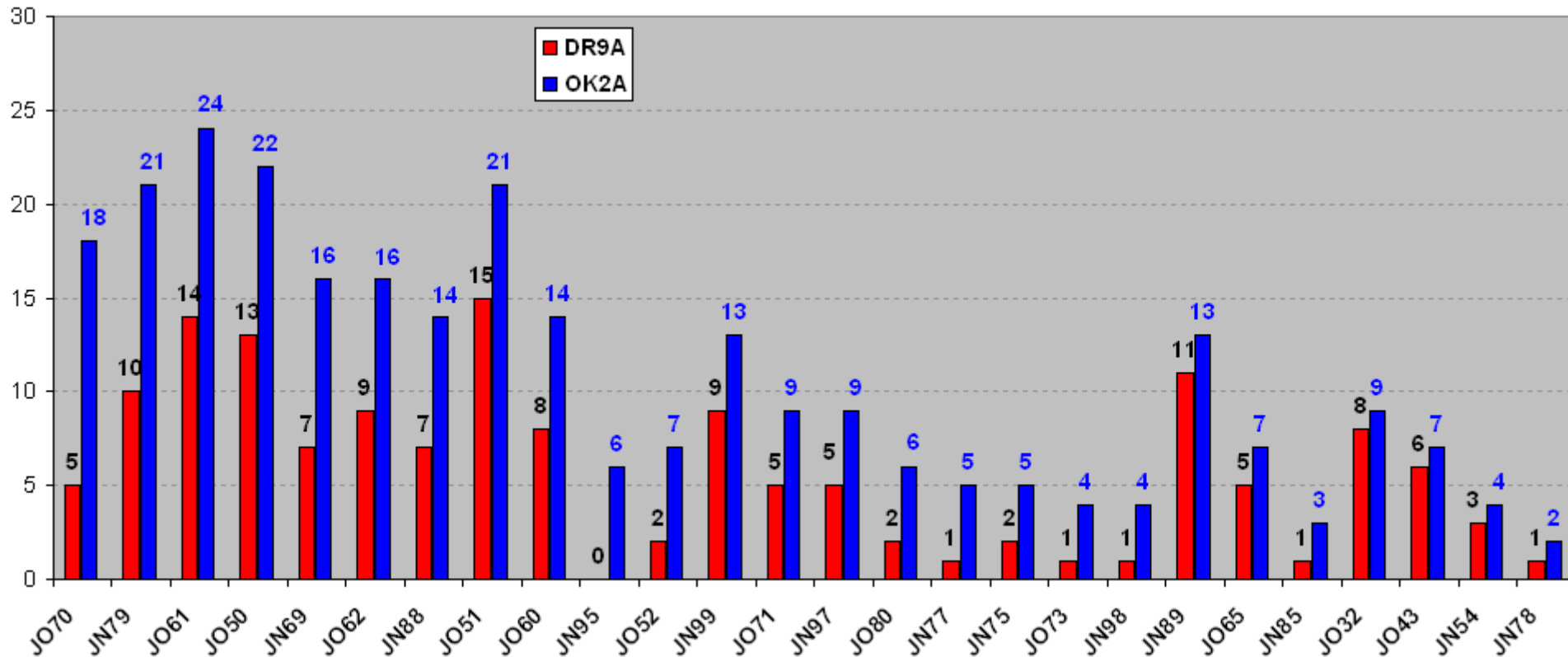
# IARU UHF CONTEST 2015 432 MHz

**DR9A & OK2A: the comparison of worked stations from each big LOC (sorted by the LOC where we lost the most of points)**  
(sorted by the LOC where we lost the most of points)



# IARU UHF CONTEST 2015 432 MHz

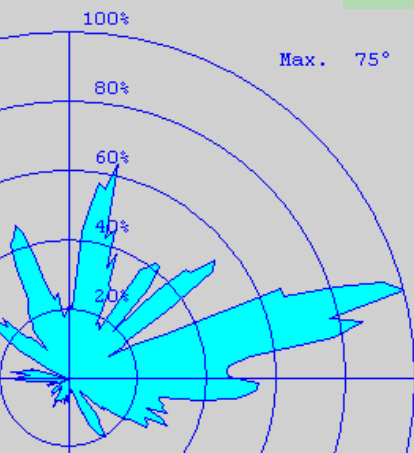
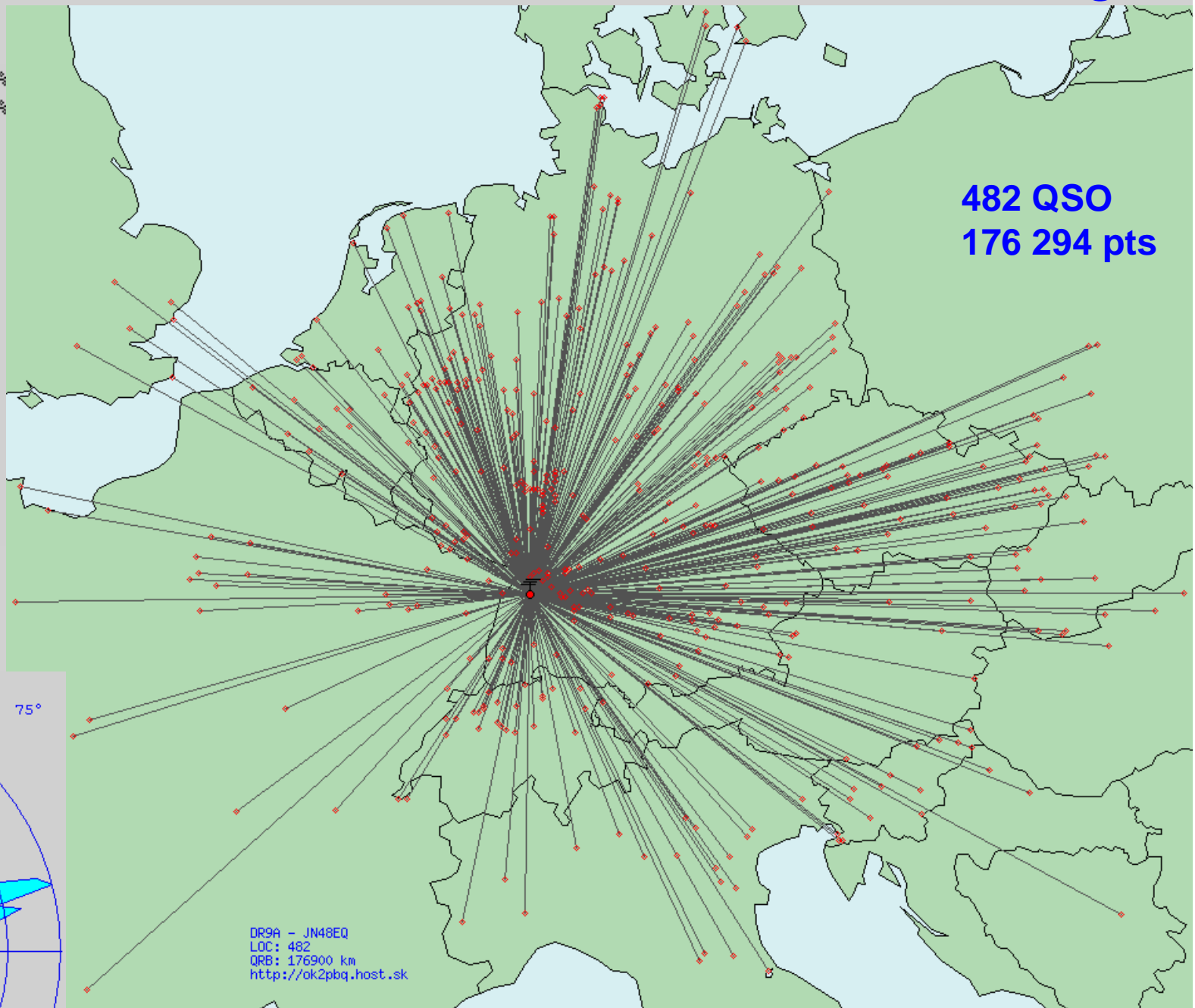
**DR9A & OK2A:** the comparison of worked stations from each big LOC (sorted by the LOC where we gained the most of points)



# IARU UHF CONTEST 2015 432 MHz

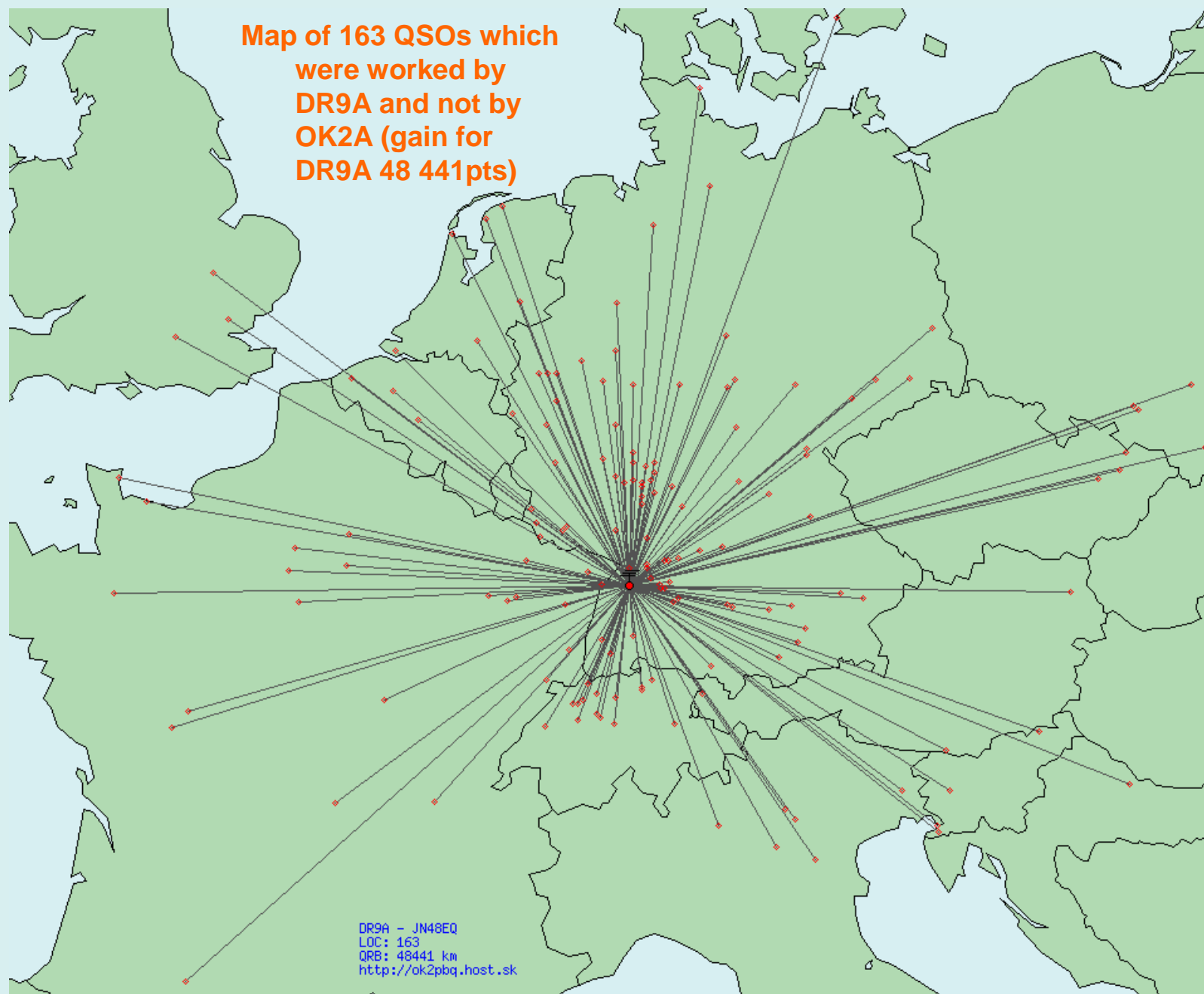
# DR9A

269	x	DL	73737	41%
42	x	OK	22739	12%
31	x	F	11209	6%
21	x	I	9600	5%
11	x	SP	8550	4%
19	x	PA	8418	4%
14	x	S5	7944	4%
11	x	OM	7841	4%
24	x	HB	4266	2%
5	x	HG	3953	2%
6	x	G	3887	2%
10	x	ON	3664	2%
8	x	OE	3429	1%
3	x	SM	2446	1%
3	x	9A	2048	1%
2	x	OZ	1643	0%
1	x	E7	920	0%



# IARU UHF CONTEST 2015 432 MHz

# DR9A



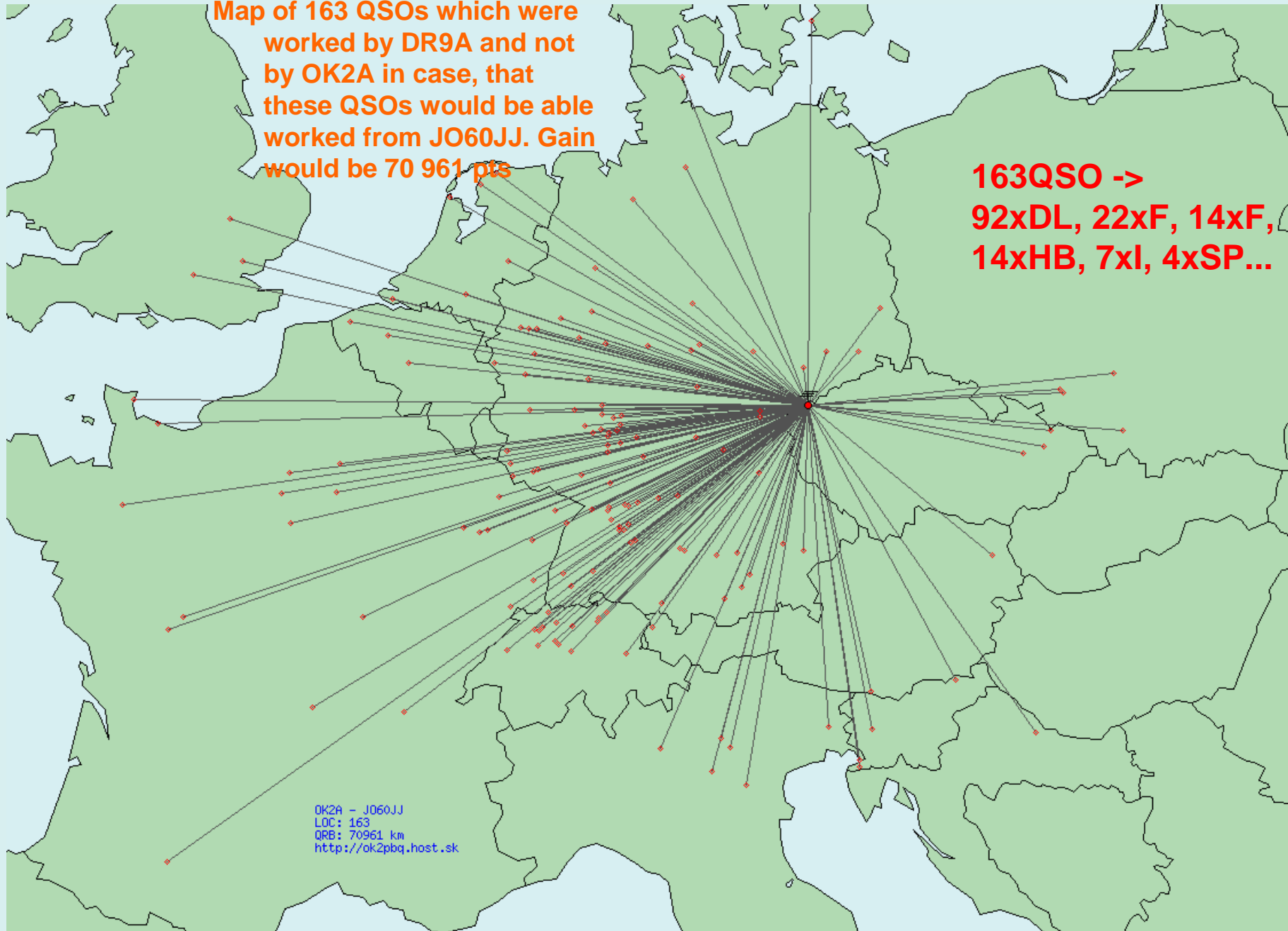
# IARU UHF CONTEST 2015 432 MHz

# DR9A

Map of 163 QSOs which were worked by DR9A and not by OK2A in case, that these QSOs would be able worked from JO60JJ. Gain would be 70 961 pts

163QSO ->  
92xDL, 22xF, 14xF,  
14xHB, 7xI, 4xSP...

OK2A - JO60JJ  
LOC: 163  
QRB: 70961 km  
<http://ok2pbq.host.sk>





# IARU UHF CONTEST 2015 432 MHz

# DR9A

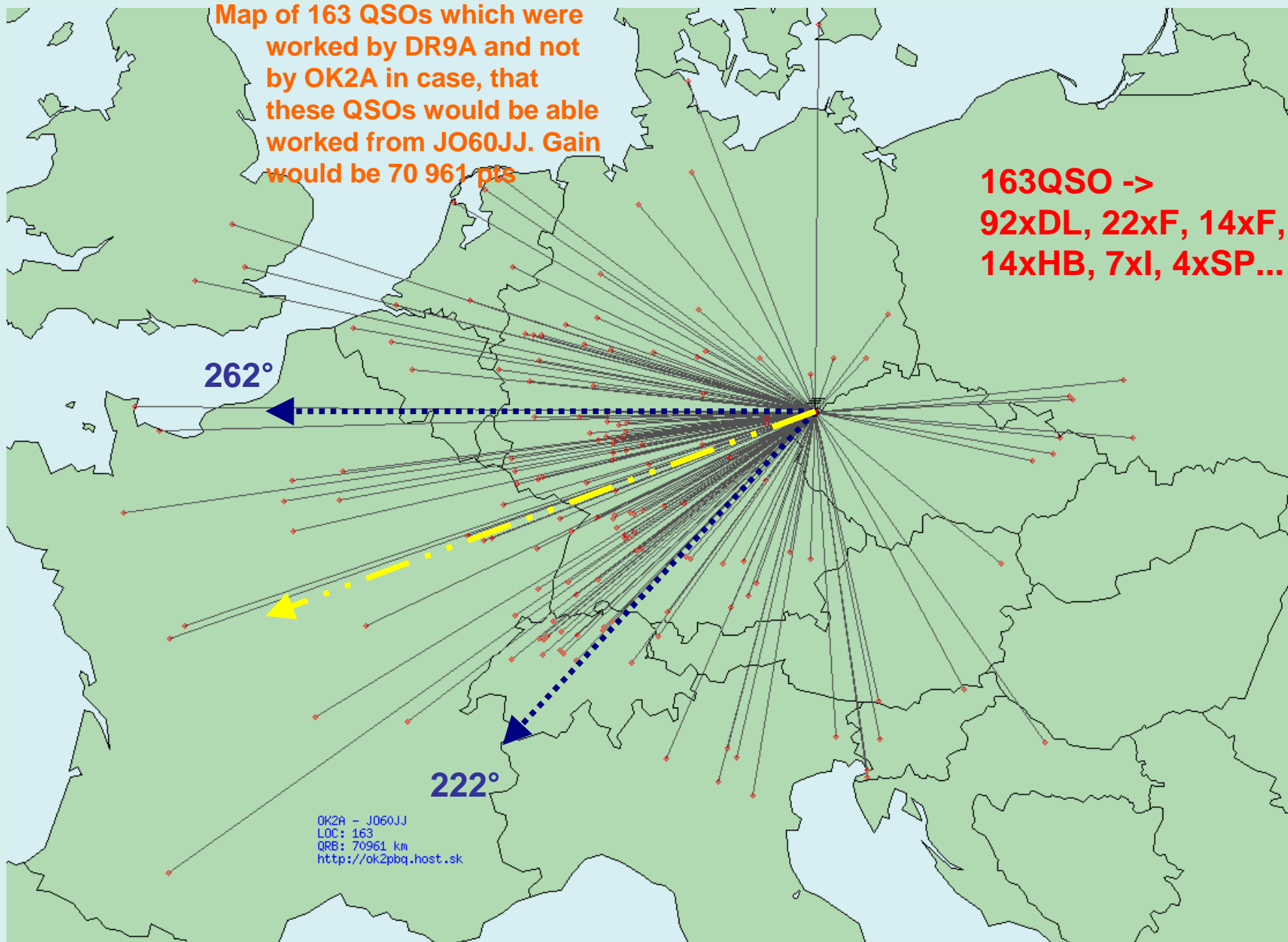
Map of 163 QSOs which were worked by DR9A and not by OK2A in case, that these QSOs would be able worked from JO60JJ. Gain would be 70 961 pts

163QSO ->  
92xDL, 22xF, 14xF,  
14xHB, 7xI, 4xSP...

262°

222°

OK2A - JO60JJ  
LOC: 163  
QRB: 70961 km  
<http://ok2pbq.host.sk>

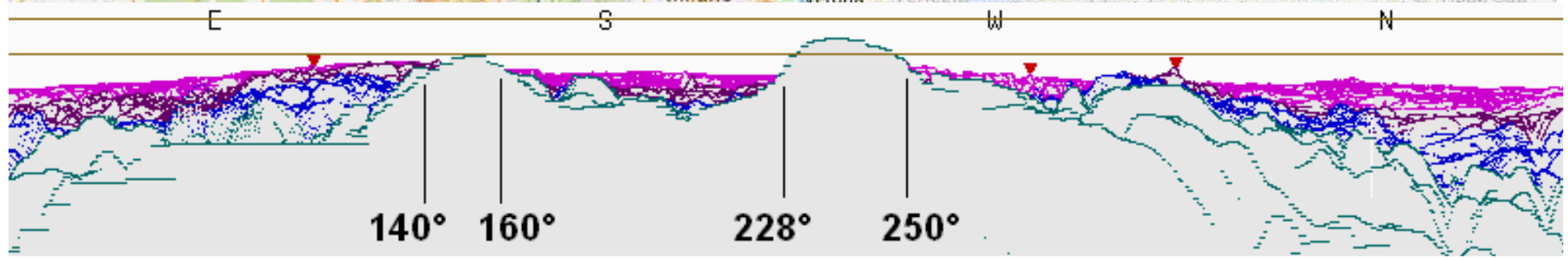


IARU UHF CONTEST 2015 432 MHz DL0GTH  
JO50JP



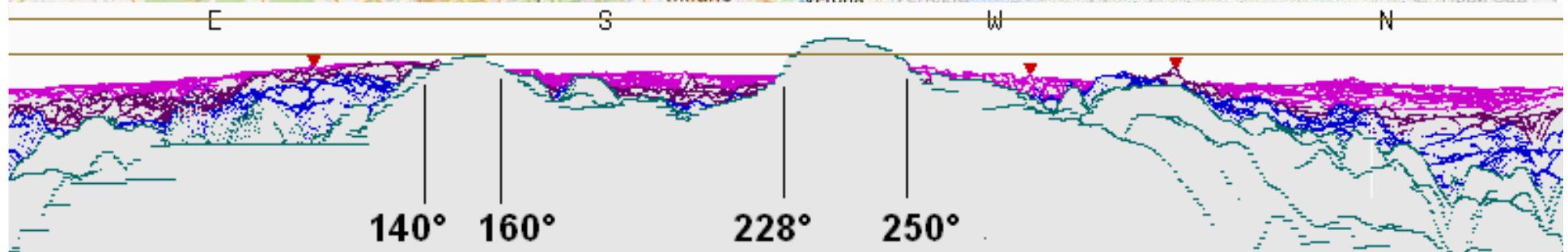
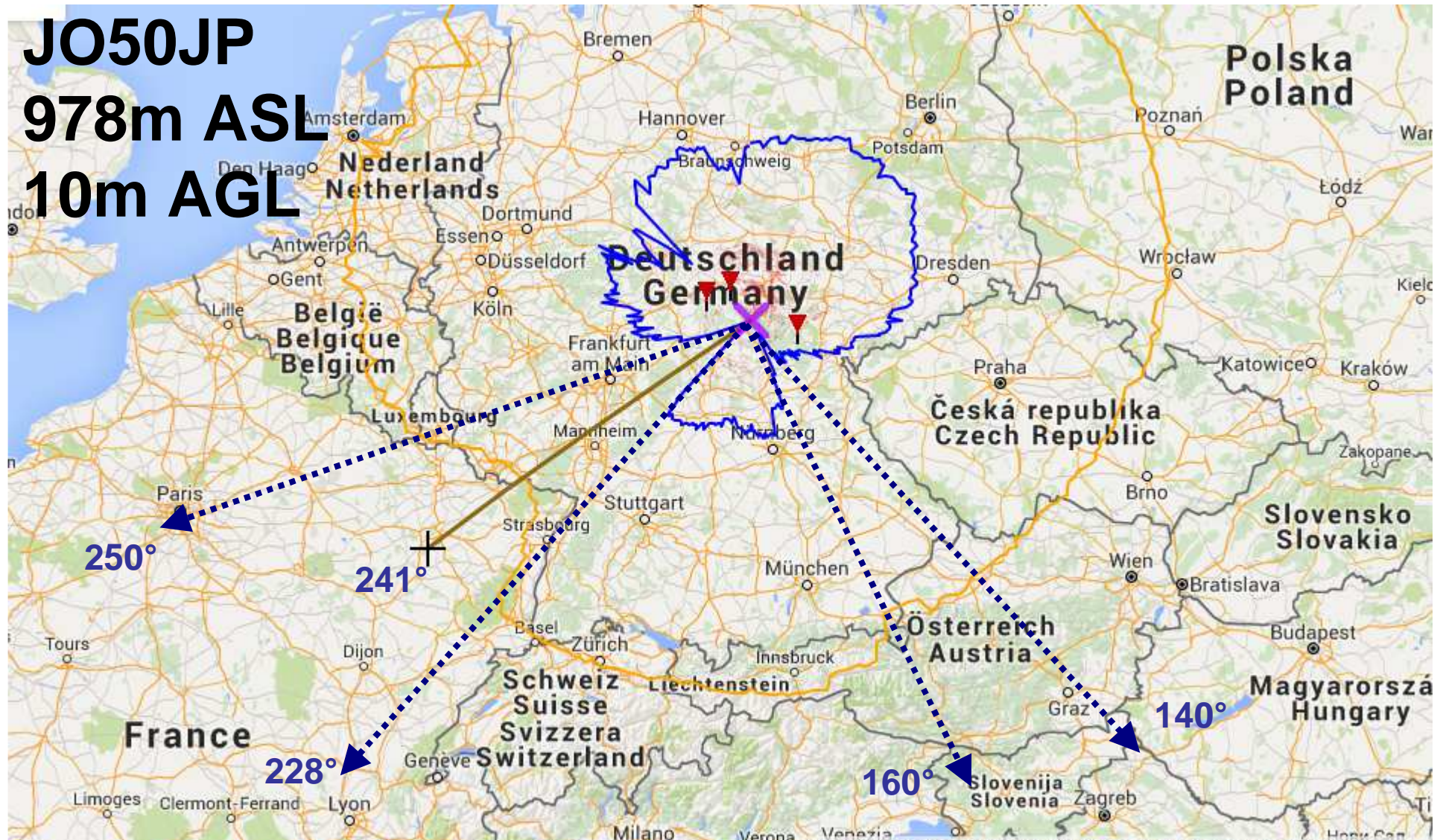


**JO50JP**  
**978m ASL**  
**10m AGL**



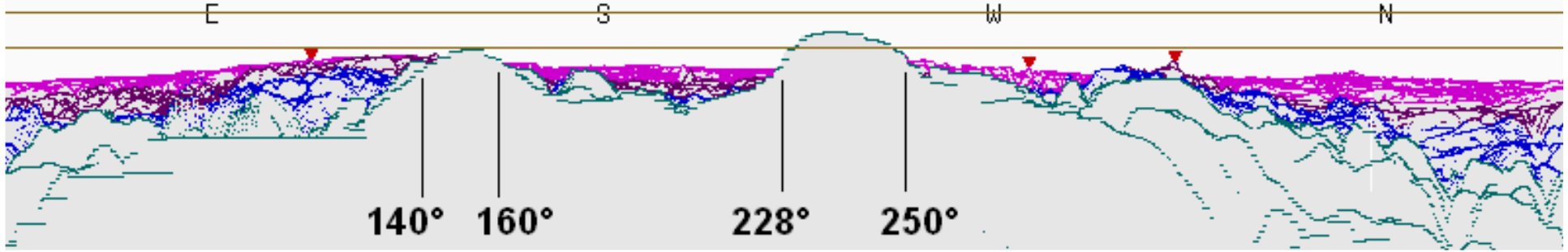
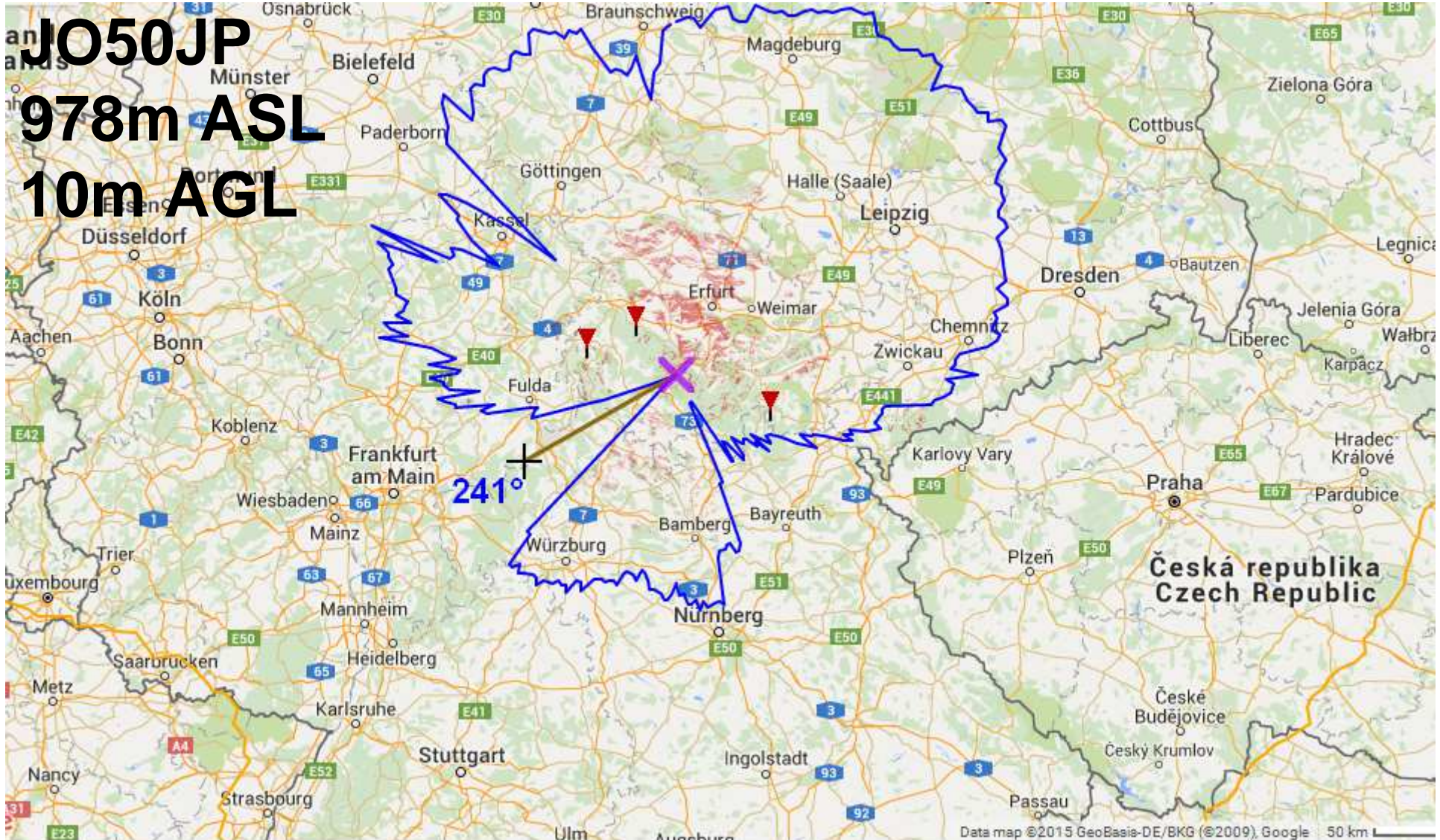


**JO50JP**  
**978m ASL**  
**10m AGL**





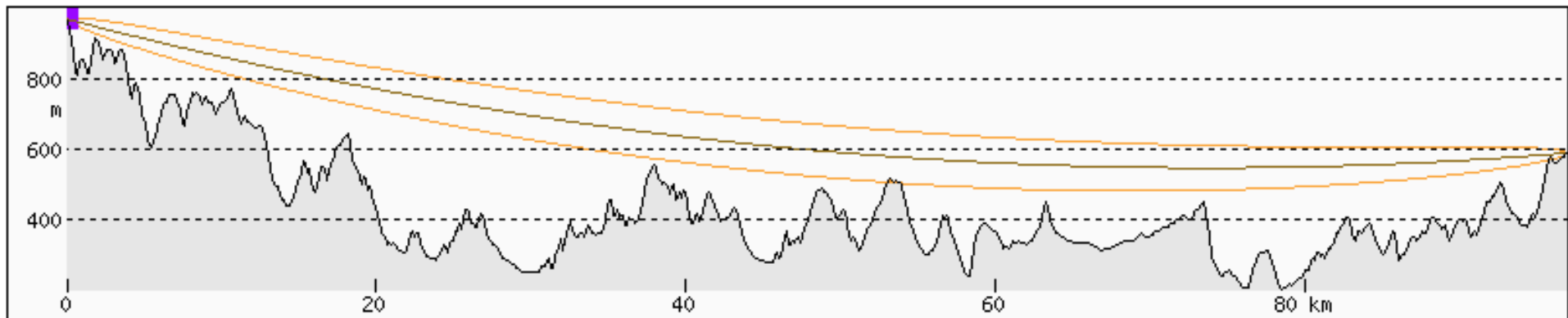
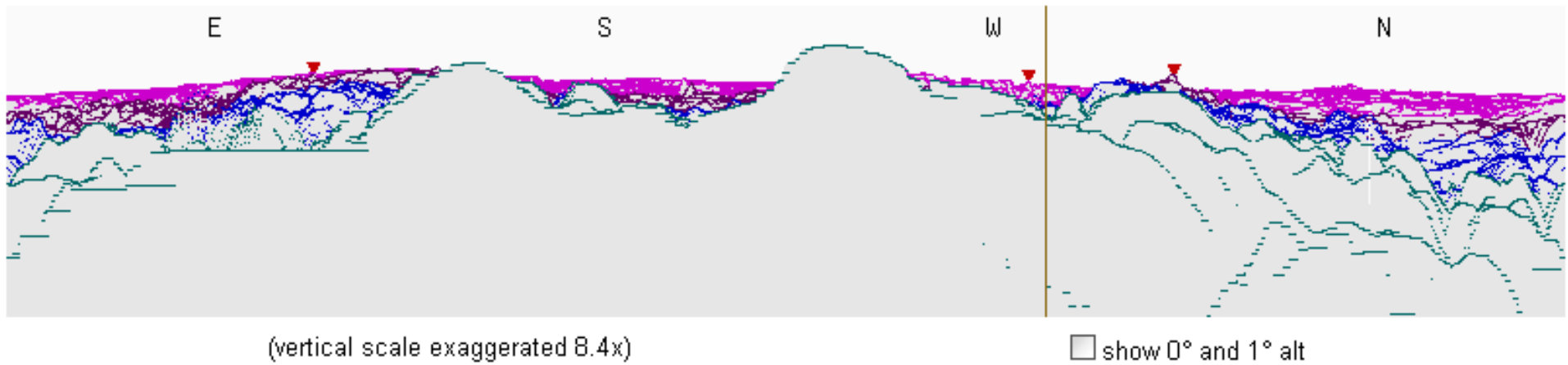
**JO50JP**  
**978m ASL**  
**10m AGL**



# JO50JP ->>> JO31

## 978m ASL

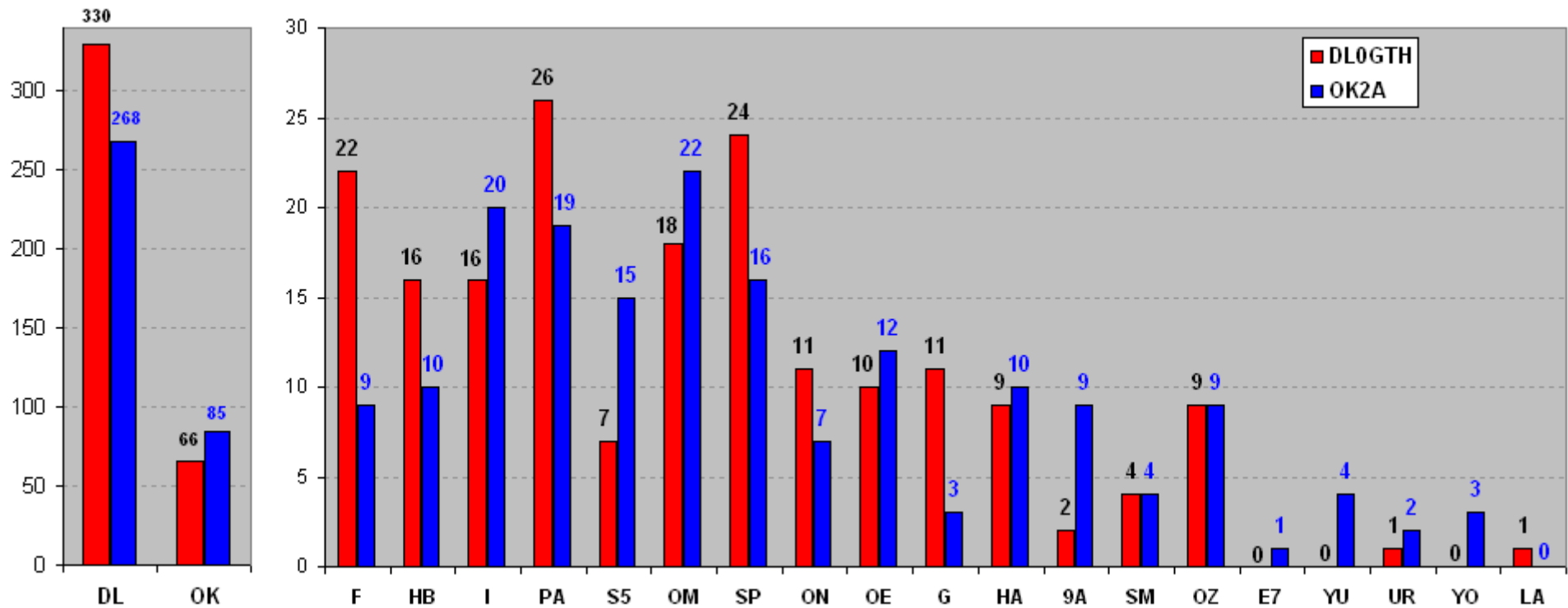
### 10m AGL





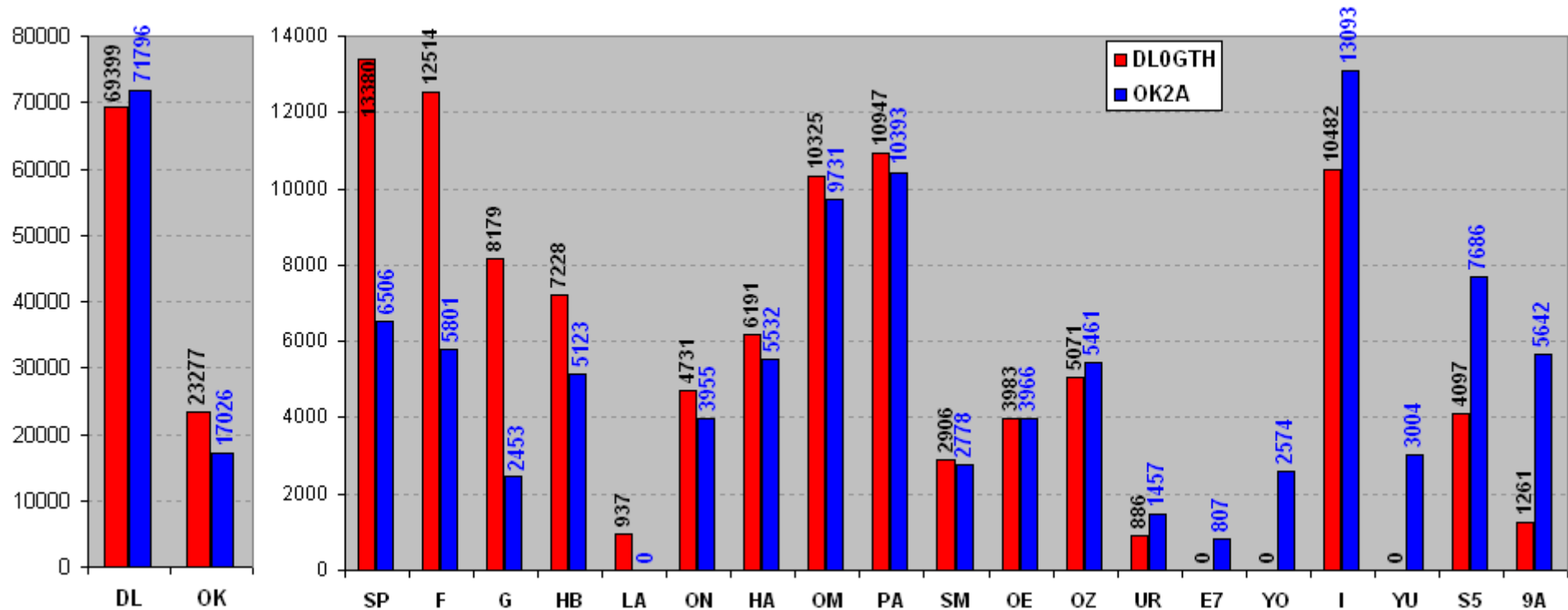
# IARU UHF CONTEST 2015 432 MHz

The number of QSOs / DXCC **DL0GTH** / **OK2A**



# IARU UHF CONTEST 2015 432 MHz

The points / DXCC **DL0GTH** / **OK2A**



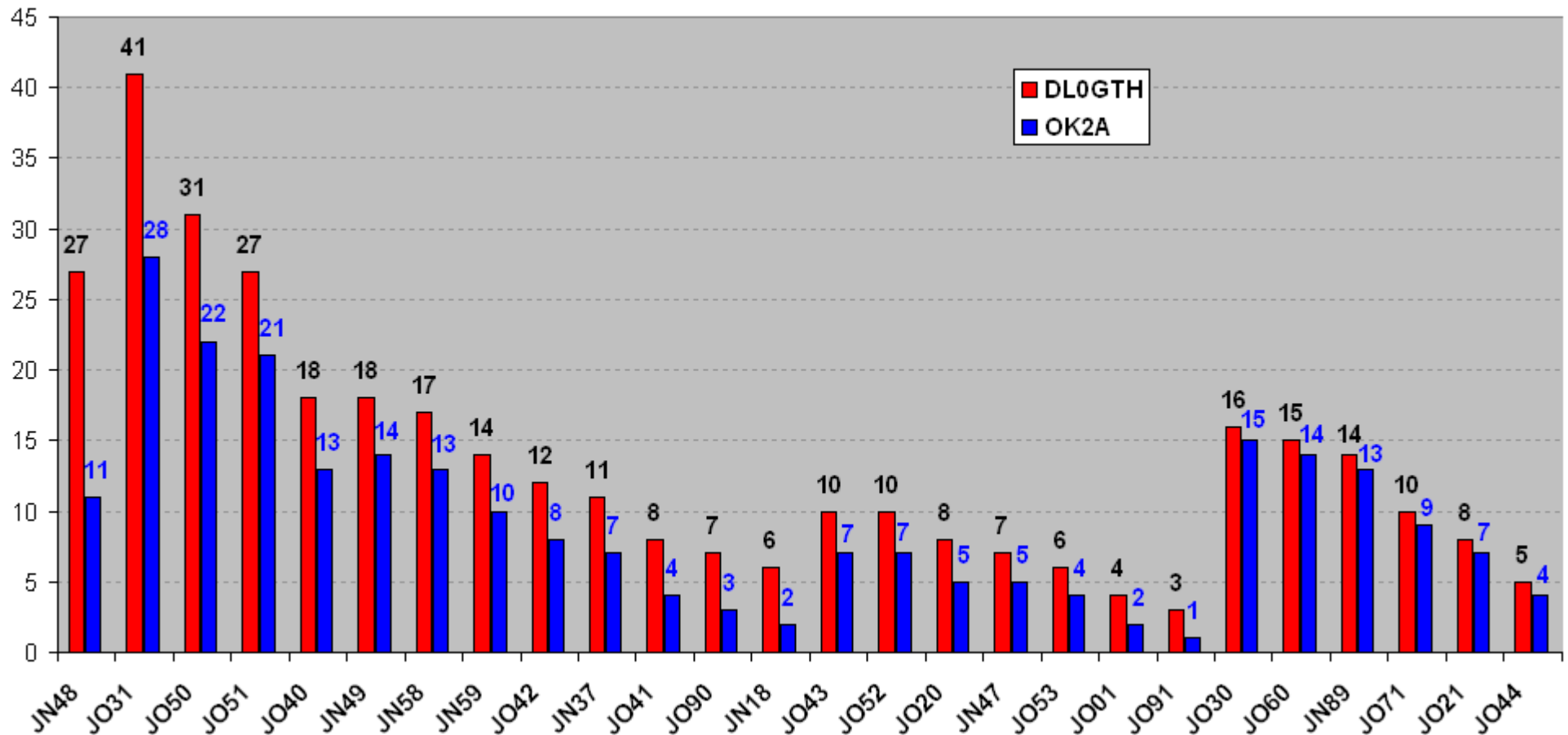
	DL0GTH	OK2A	rozdil
SP	13380	6506	-6874
F	12514	5801	-6713
OK	23277	17026	-6251
G	8179	2453	-5726
HB	7228	5123	-2105
LA	937	0	-937
ON	4731	3955	-776
HA	6191	5532	-659
OM	10325	9731	-594
PA	10947	10393	-554
SM	2906	2778	-128

	DL0GTH	OK2A	rozdil
OE	3983	3966	-17
OZ	5071	5461	390
UR	886	1457	571
E7	0	807	807
DL	69399	71796	2397
YO	0	2574	2574
I	10482	13093	2611
YU	0	3004	3004
S5	4097	7686	3589
9A	1261	5642	4381



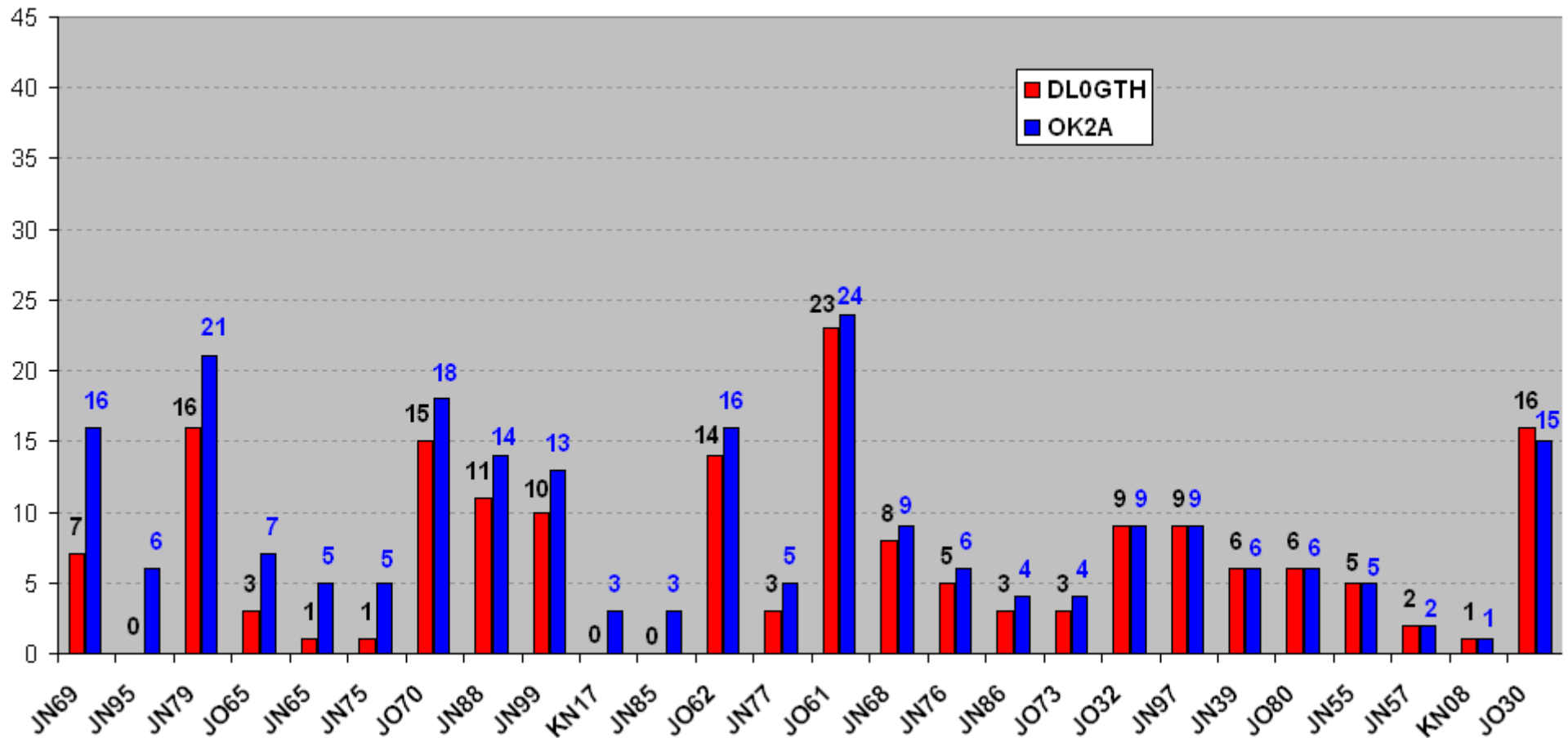
# IARU UHF CONTEST 2015 432 MHz

**DL0GTH & OK2A: the comparison of worked stations from each big LOC (sorted by the LOC where we lost the most of points)**  
(sorted by the LOC where we lost the most of points)



# IARU UHF CONTEST 2015 432 MHz

**DL0GTH & OK2A: the comparison of worked stations from each big LOC (sorted by the LOC where we gain the most of points)**  
(sorted by the LOC where we gain the most of points)

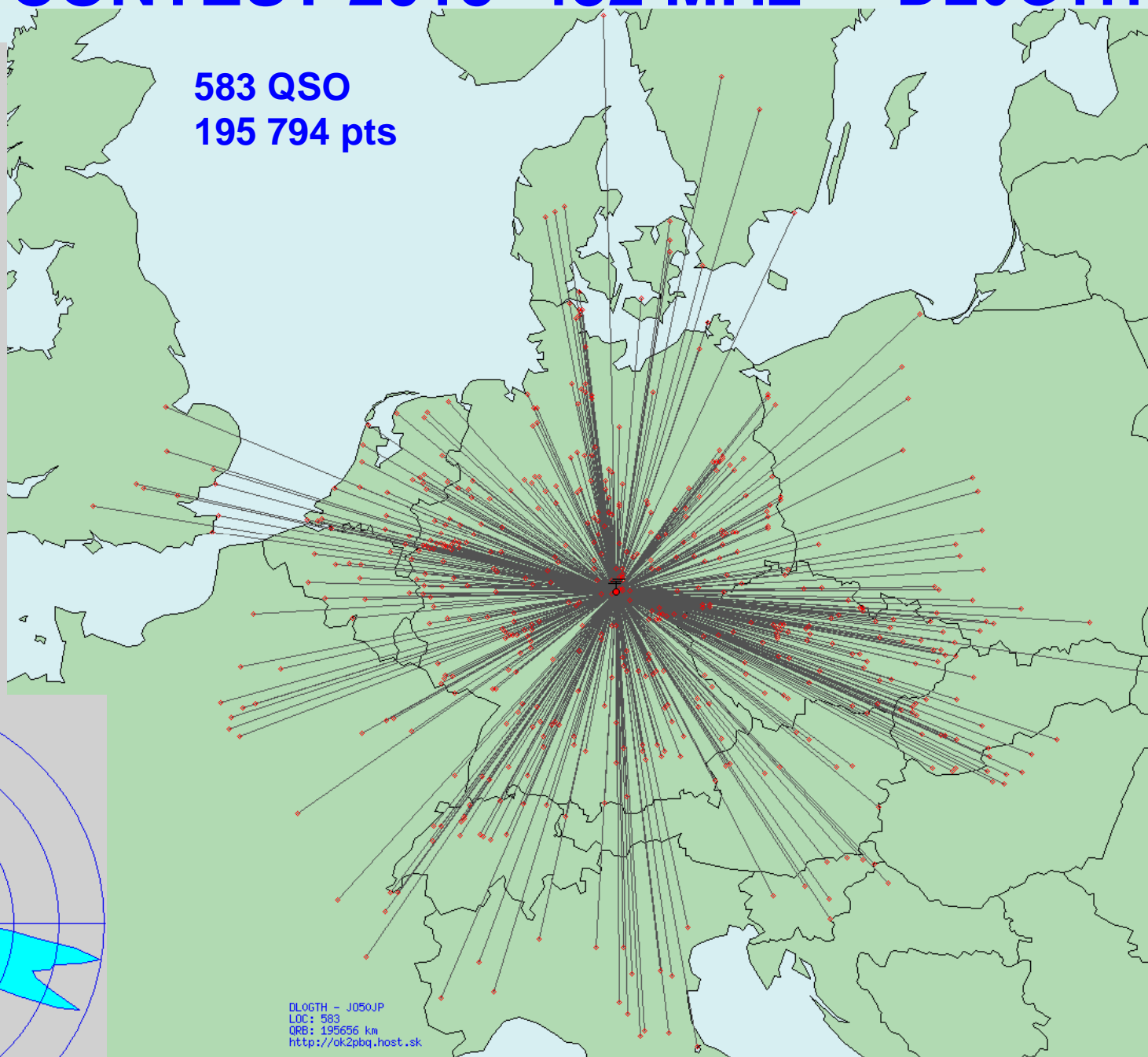




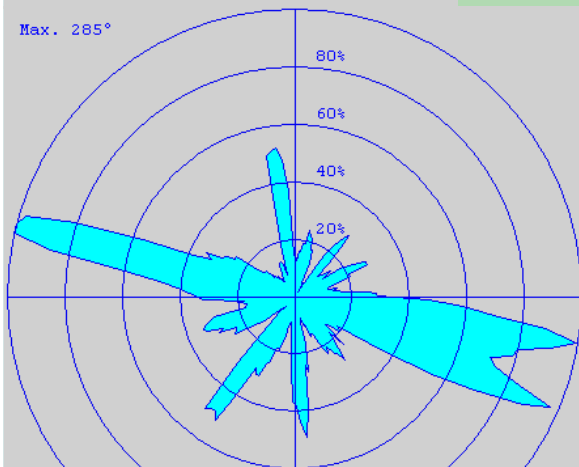
# IARU UHF CONTEST 2015 432 MHz DL0GTH

330	x	DL	69399	35%
66	x	OK	23277	11%
24	x	SP	13380	6%
22	x	F	12514	6%
26	x	PA	10947	5%
16	x	I	10482	5%
18	x	OM	10325	5%
11	x	G	8179	4%
16	x	HB	7228	3%
9	x	HG	6191	3%
9	x	OZ	5071	2%
11	x	ON	4731	2%
7	x	S5	4097	2%
10	x	OE	3983	2%
4	x	SM	2906	1%
2	x	9A	1261	0%
1	x	LA	937	0%
1	x	UR	886	0%

**583 QSO**  
**195 794 pts**



Max. 285°

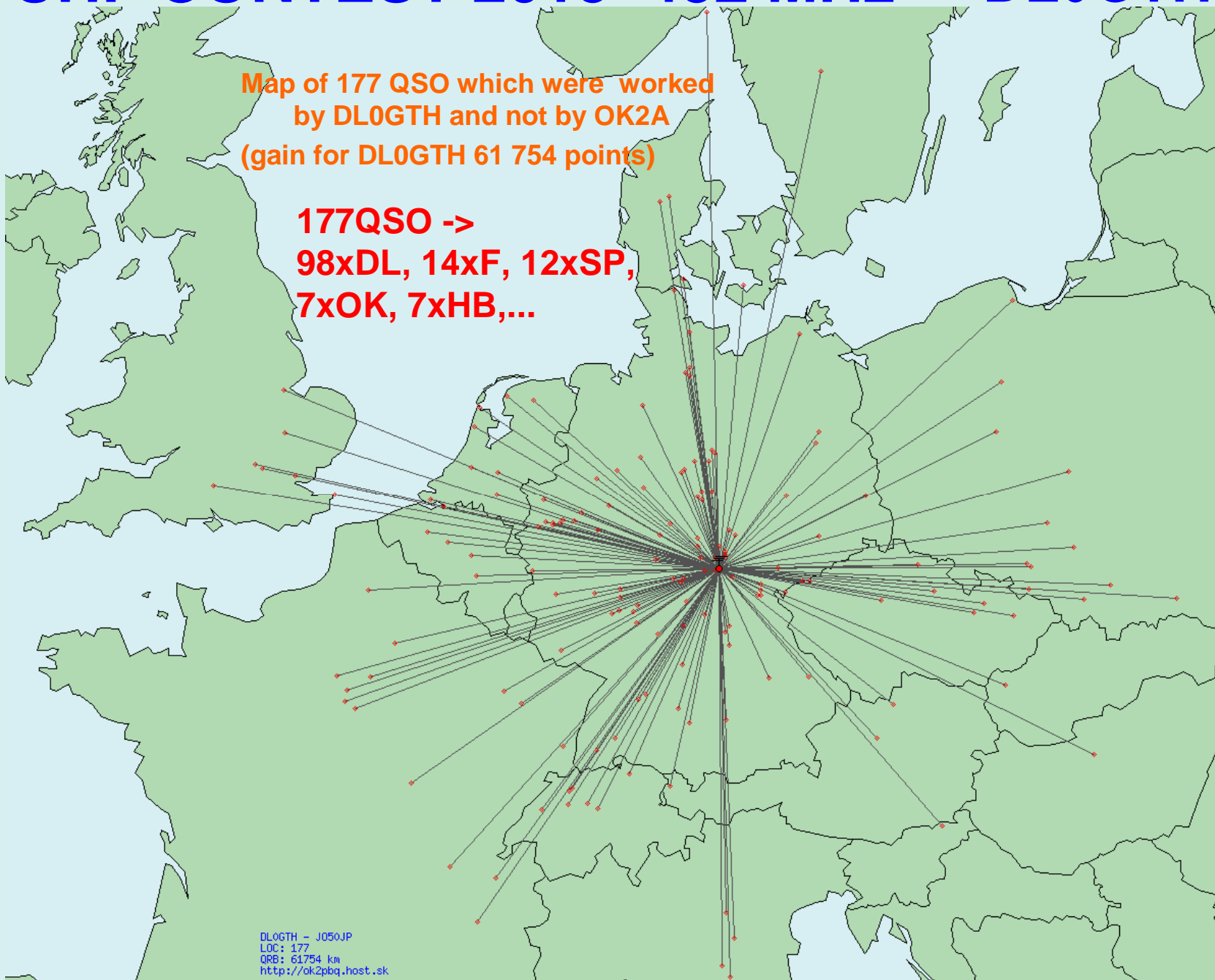


DL0GTH - J050JP  
LOC: 583  
QRB: 195656 km  
<http://ok2pbq.host.sk>

# IARU UHF CONTEST 2015 432 MHz DL0GTH

Map of 177 QSO which were worked  
by DL0GTH and not by OK2A  
(gain for DL0GTH 61 754 points)

177QSO ->  
98xDL, 14xF, 12xSP,  
7xOK, 7xHB,...

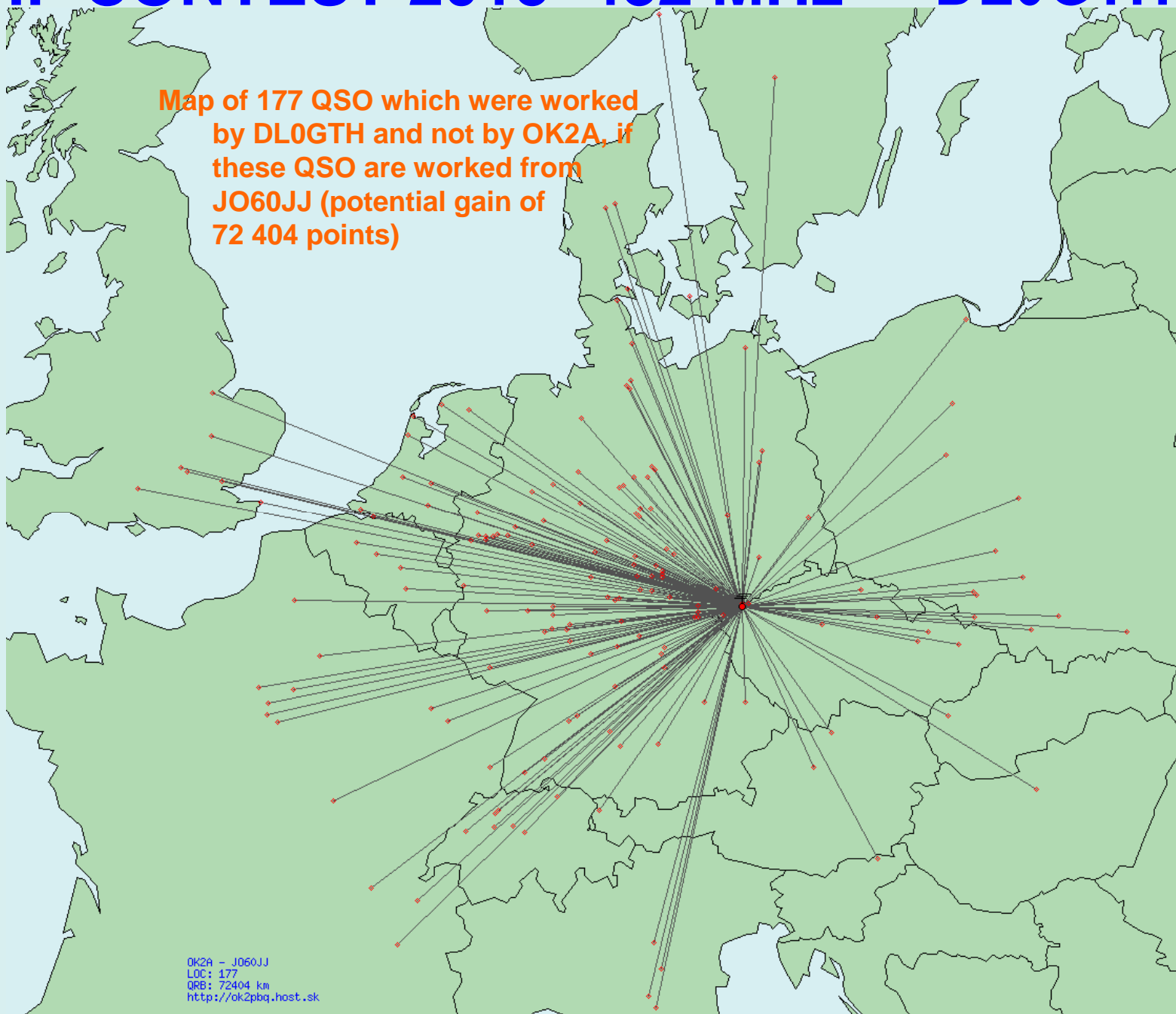


DL0GTH - J050JP  
LOC: 177  
QRB: 61754 km  
<http://ok2pbq.host.sk>



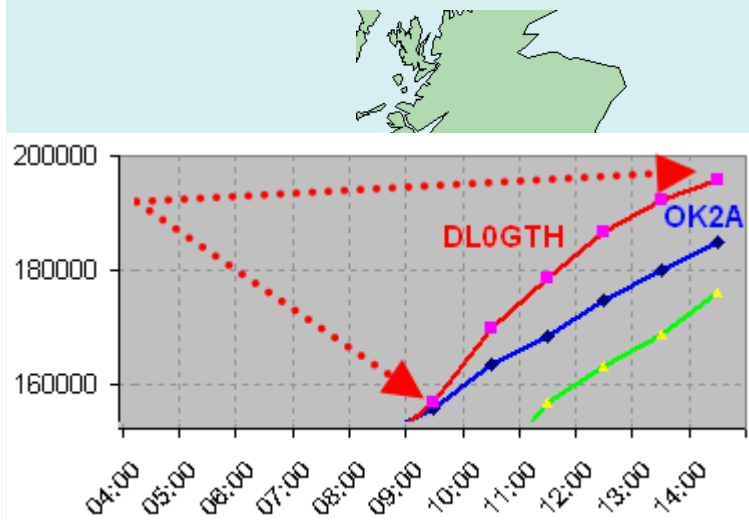
# IARU UHF CONTEST 2015 432 MHz DL0GTH

Map of 177 QSO which were worked by DL0GTH and not by OK2A, if these QSO are worked from JO60JJ (potential gain of 72 404 points)

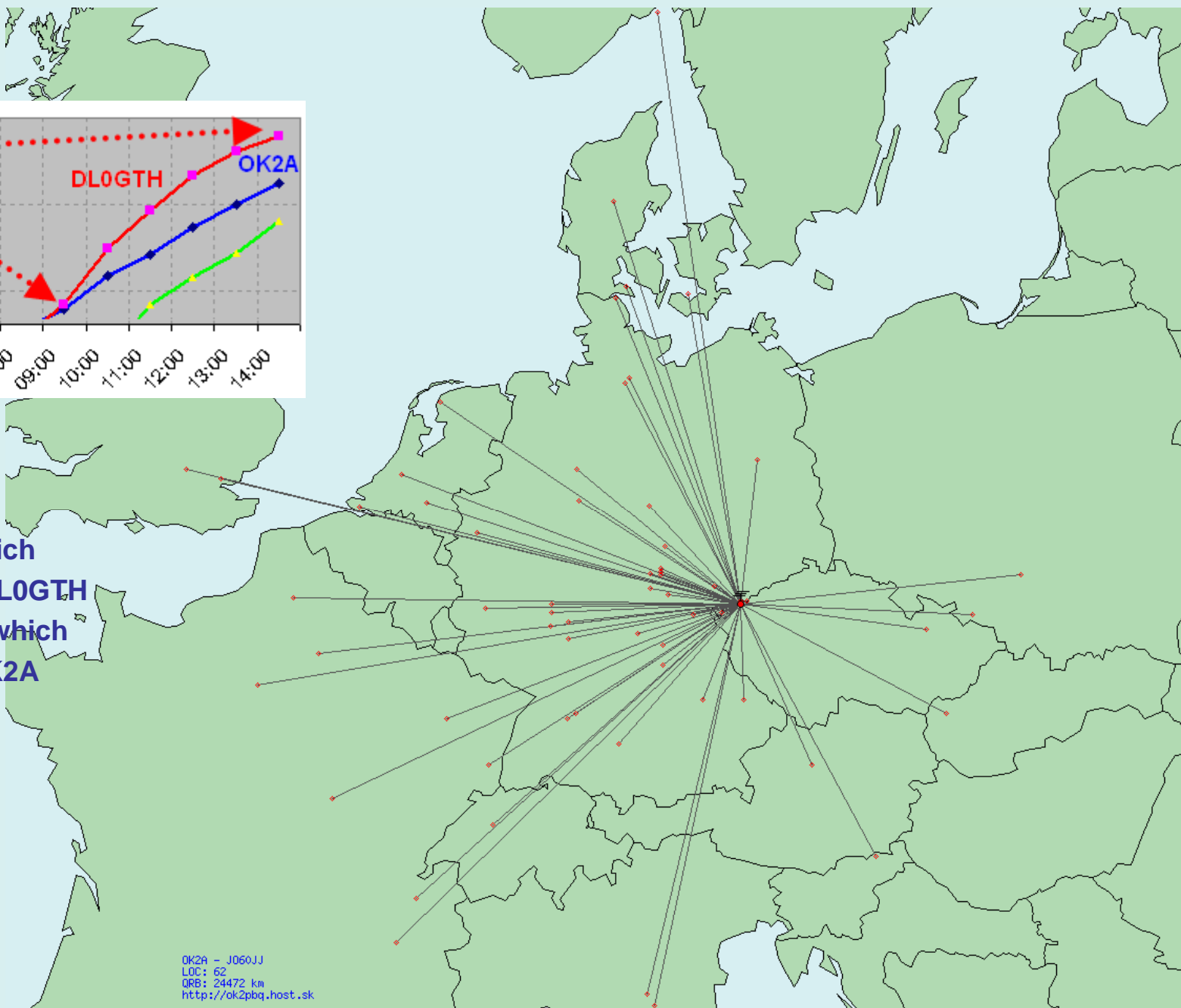


OK2A - JO60JJ  
LOC: 177  
QRB: 72404 km  
<http://ok2pbq.host.sk>

# IARU UHF CONTEST 2015 432 MHz DL0GTH



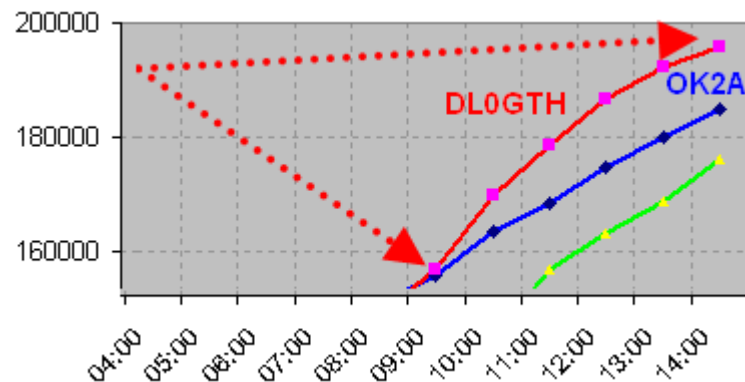
Mapa of QSOs which were worked by DL0GTH after 9h UTC and which are missing by OK2A (loss for OK2A -24 472 points)



OK2A - J060JJ  
LDC: 62  
QRB: 24472 km  
<http://ok2pbq.host.sk>



# IARU UHF CONTEST 2015 432 MHz DL0GTH



Mapa of QSOs which were worked by DL0GTH after 9h UTC and which are missing by OK2A (loss for OK2A -24 472 points)

M0SAT	IO91TP	787
F5JFU/P	JN17XE	631
F4BCG	JN18AQ	667
F1NPX/P	JN19PG	558
F1JKY/P	JN25TE	719
F1GCX	JN25XU	642
F1TRE	JN37PV	398
HB9DPY	JN37RA	472
F6DDW	JN38DM	402
DJ7GX	JN48LP	259
DK0SU	JN48NR	245
DO2TDT	JN49FX	182
DN8MM	JN49KT	165
IK4HLQ	JN54KP	668
IK1YNZ/4	JN54ML	686
DK0IL	JN58BH	264
DL5RDI	JN58XX	204
DR6A	JN59FW	83
DK0FLT	JN59FW	83
DC9JVN	JN59ML	131
DK8AF	JN59MS	99
DJ7GK	JN68KX	239
S51IV	JN76UP	573
OE5MKN	JN78EA	391
OM3TCC	JN88QQ	522
OK2NJI	JN89MW	452
G8HGN	JO01FO	729
F5DRD	JO10GA	590
PA3HFJ	JO11VL	498
PE1BTL	JO21QP	394
PA8R	JO22IA	450

PE1DAB	JO23RD	460
DO1DJJ/P	JO30LE	277
DD4JK	JO31HG	301
DO1KUB	JO40FE	174
DH3FAN	JO40FH	170
DH9FAC	JO40KB	151
DL5BAQ	JO41LU	186
DL0MI	JO42KH	228
DO4ZA	JO43XO	334
OZ6TW	JO44TU	475
OZ6HY	JO45WA	491
OV3T	JO46RG	632
DL4AWK	JO50IO	8
DL1ANN	JO50IT	20
DL1ARH	JO50LT	22
DM2ORI	JO50LU	26
DM3XI	JO50LV	31
DG0AU	JO50NM	28
DK2EA	JO50UF	80
DL5FCE/P	JO51HT	131
DL1ATI	JO51MF	68
DL7HAR	JO53AQ	343
OZ7JRL	JO54RW	480
LA2IMA	JO59FB	937
DN5KA	JO60CP	100
OK1IBI	JO60EG	120
DL9NCI/P	JO60JK	144
DL6DVU	JO60LK	155
DC9WX	JO62OM	268
SP9UOP	JO90BC	524
SN9D	JO90PP	600

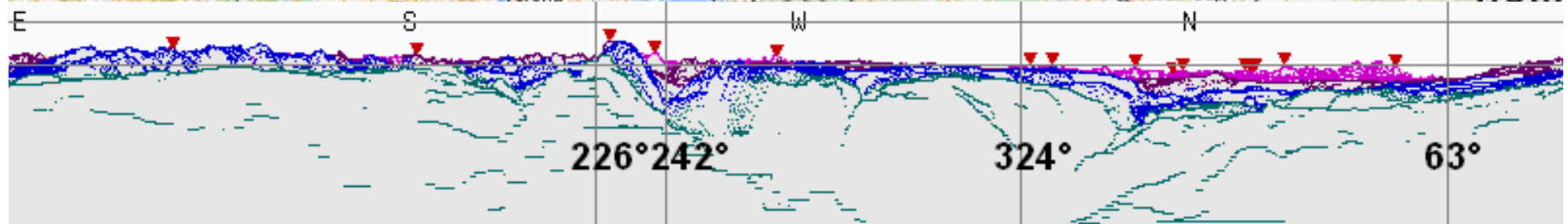
**IARU UHF CONTEST 2015 432 MHz OL3Z  
JN79FX**





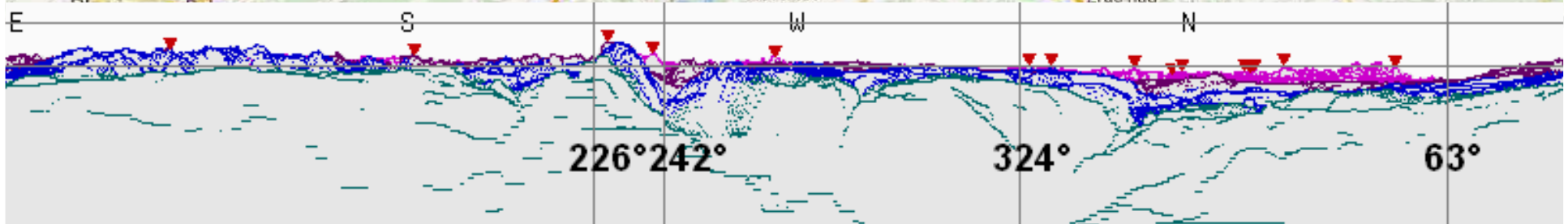
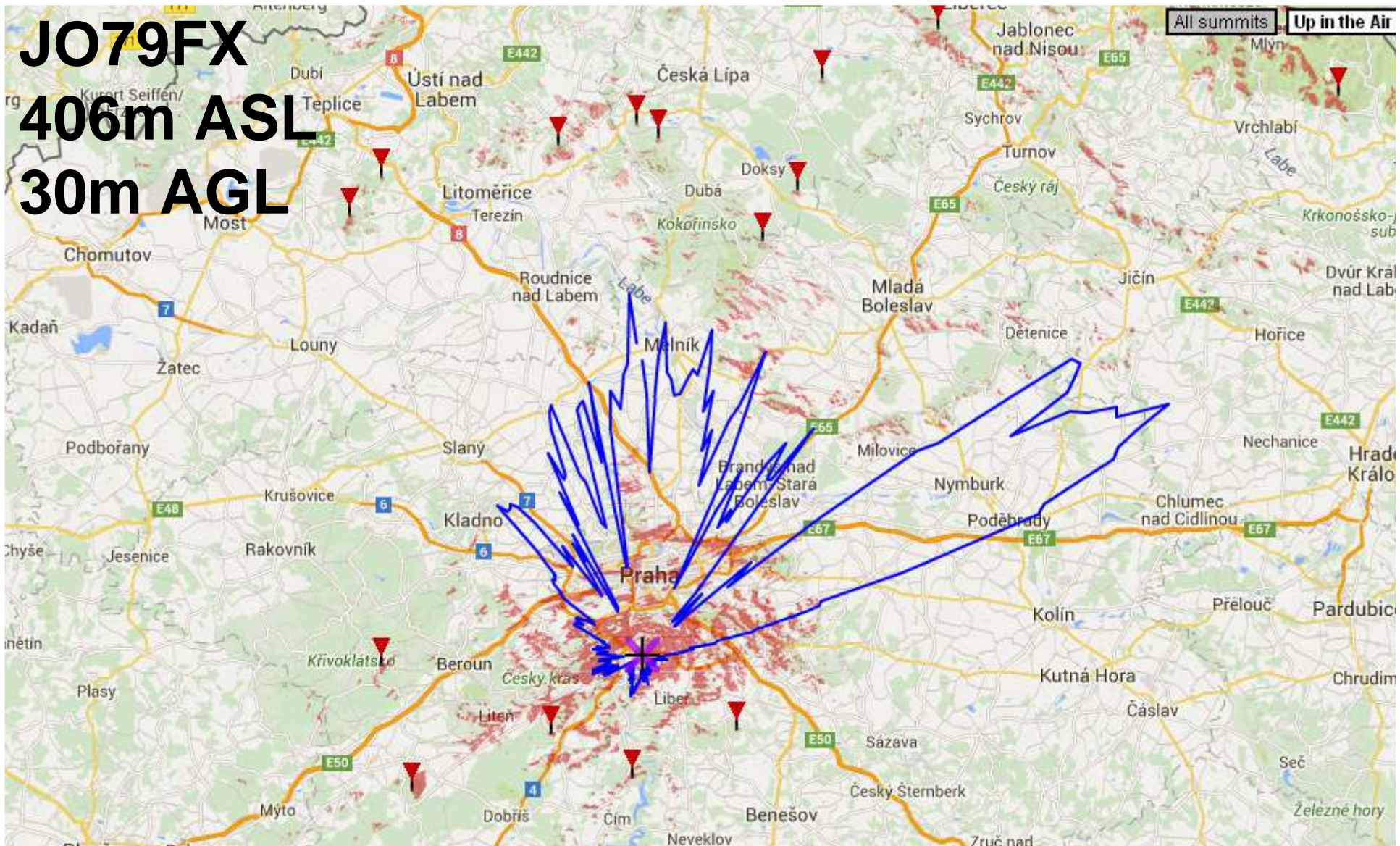
**JO79FX**  
**406m ASL**  
**30m AGL**

All summits Up in the Air





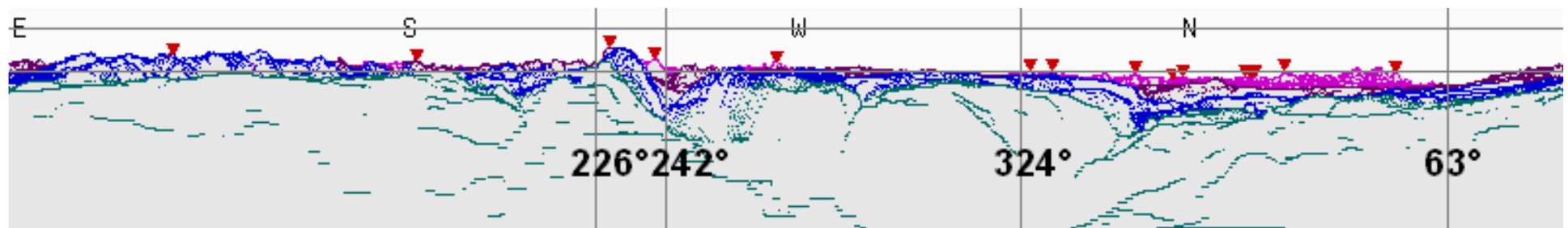
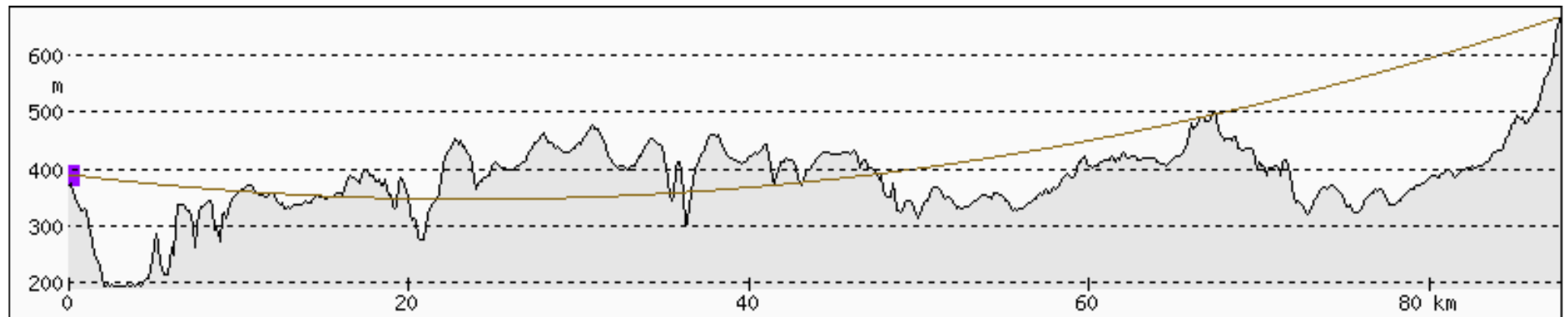
**JO79FX**  
**406m ASL**  
**30m AGL**



**JN79FX ->>> JO31 285°**

**460m ASL**

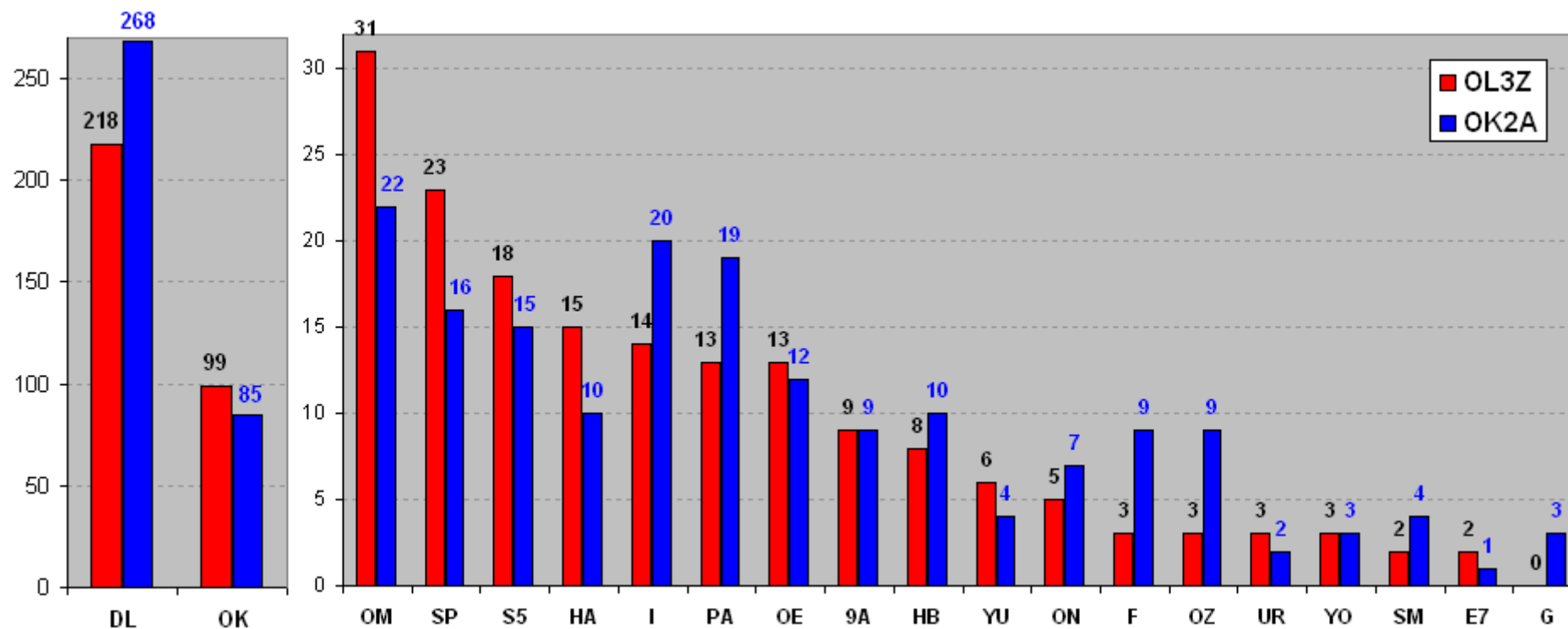
**30m AGL**





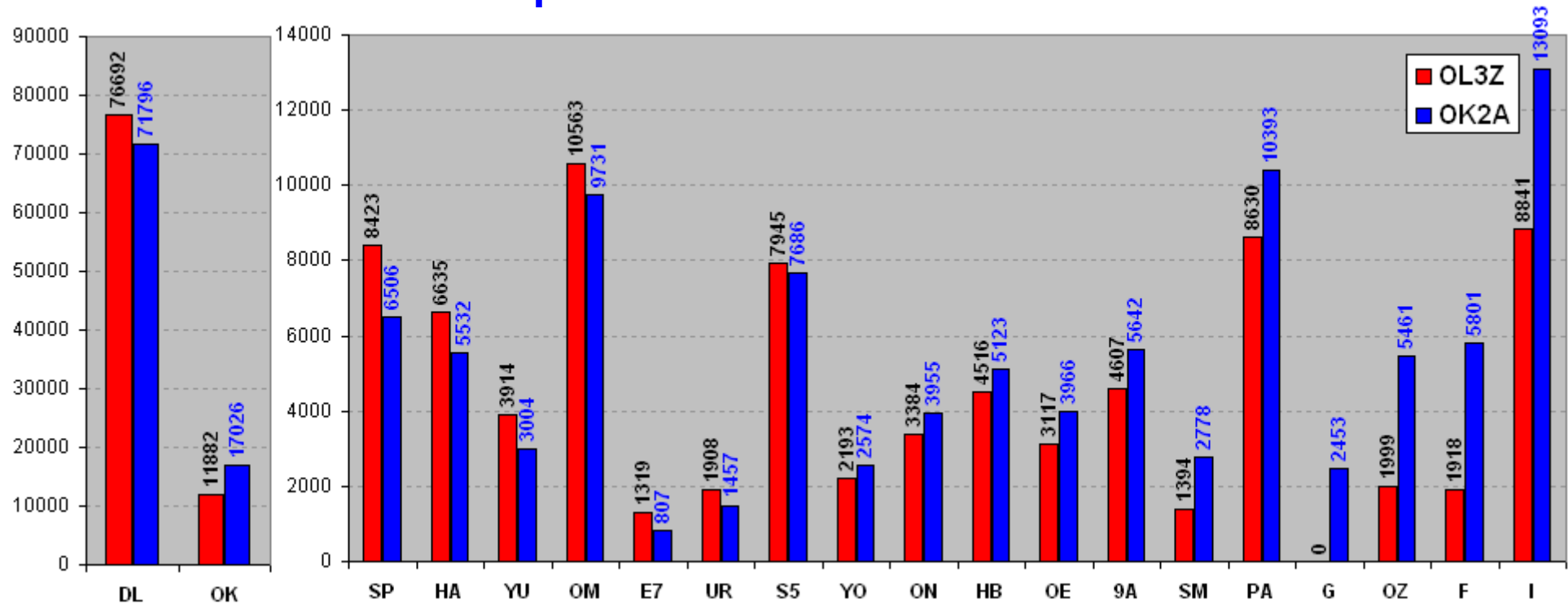
# IARU UHF CONTEST 2015 432 MHz

Number of QSOs / DXCC **OL3Z** / **OK2A**



# IARU UHF CONTEST 2015 432 MHz

points / DXCC **OL3Z** / **OK2A**



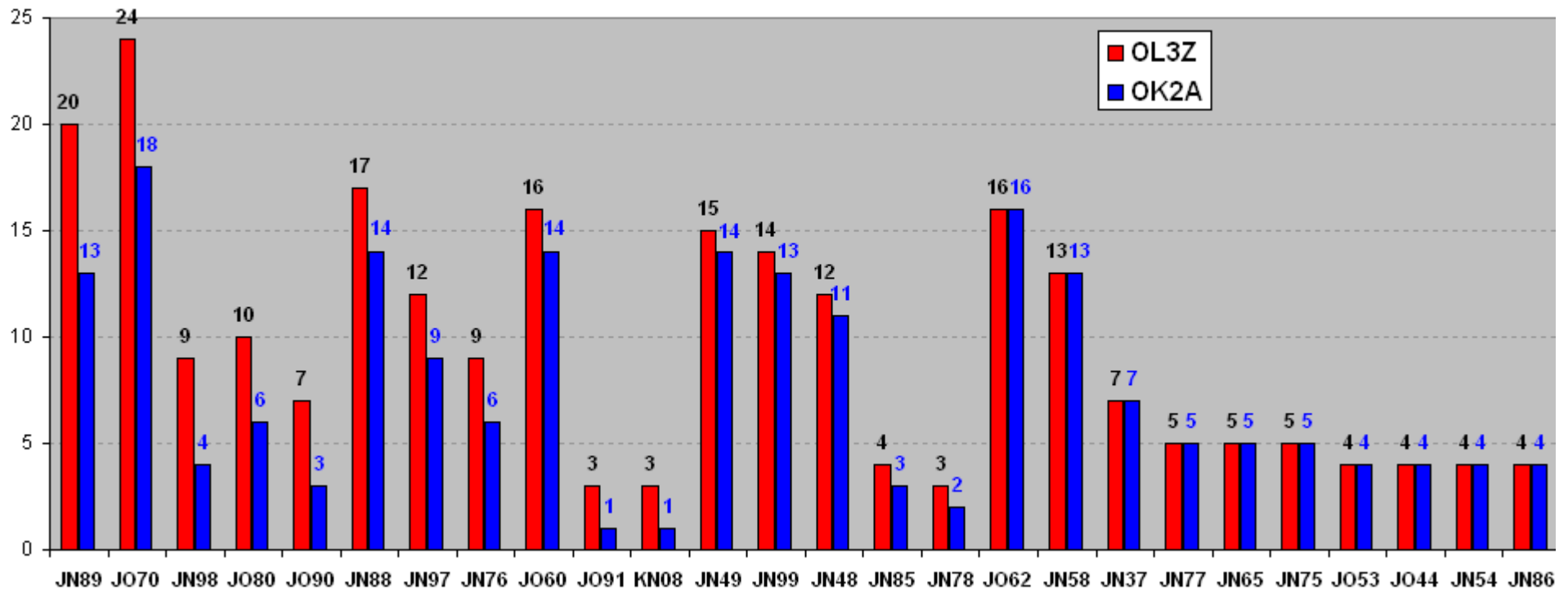
	OL3Z	OK2A	rozdil
DL	76692	71796	-4896
SP	8423	6506	-1917
HA	6635	5532	-1103
YU	3914	3004	-910
OM	10563	9731	-832
E7	1319	807	-512
UR	1908	1457	-451
S5	7945	7686	-259
YO	2193	2574	381
ON	3384	3955	571

	OL3Z	OK2A	rozdil
HB	4516	5123	607
OE	3117	3966	849
9A	4607	5642	1035
SM	1394	2778	1384
PA	8630	10393	1763
G	0	2453	2453
OZ	1999	5461	3462
F	1918	5801	3883
I	8841	13093	4252
OK	11882	17026	5144



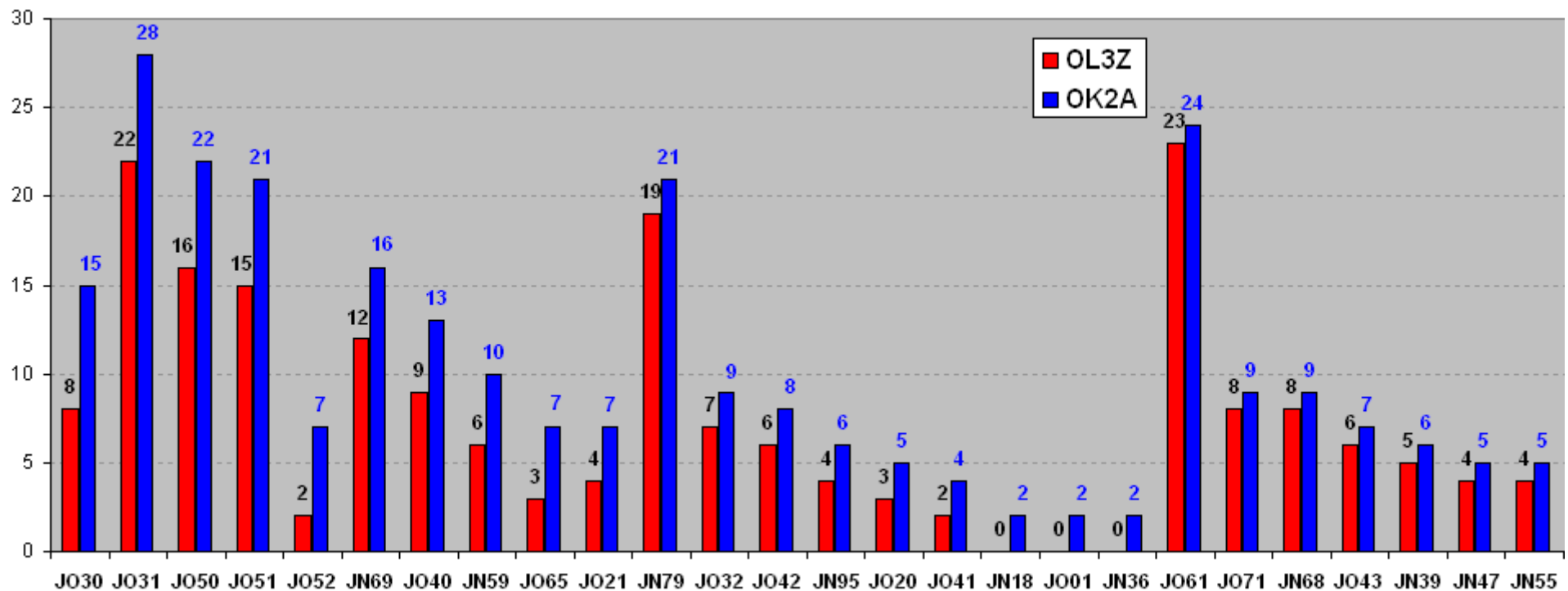
# IARU UHF CONTEST 2015 432 MHz

**OL3Z & OK2A:** the comparison of worked stations from each big LOC (sorted by the LOC where we lost the most of points)



# IARU UHF CONTEST 2015 432 MHz

**OL3Z & OK2A: the comparison of worked stations from each big LOC (sorted by the LOC where we gain the most of points)**  
(sorted by the LOC where we gain the most of points)

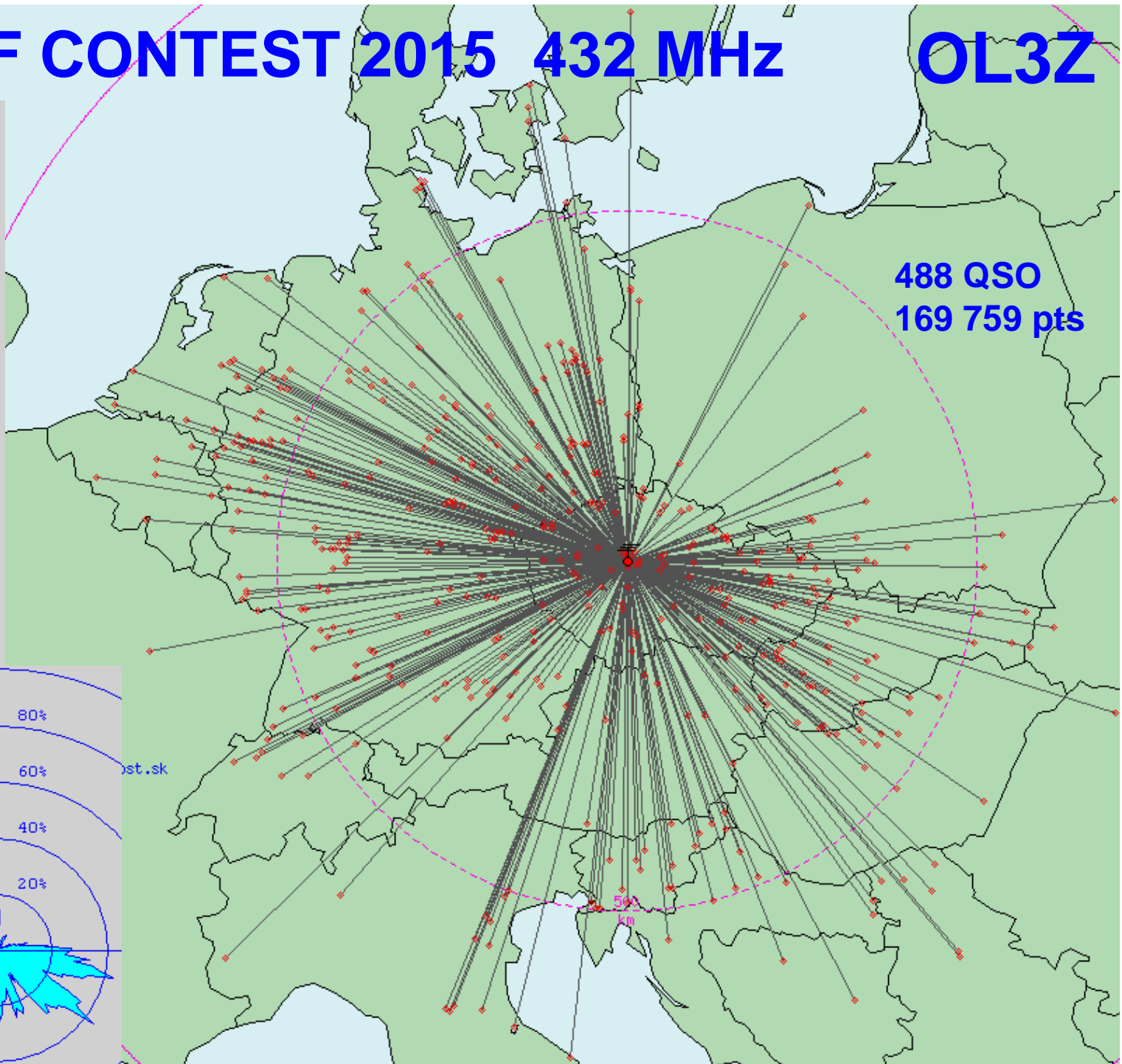
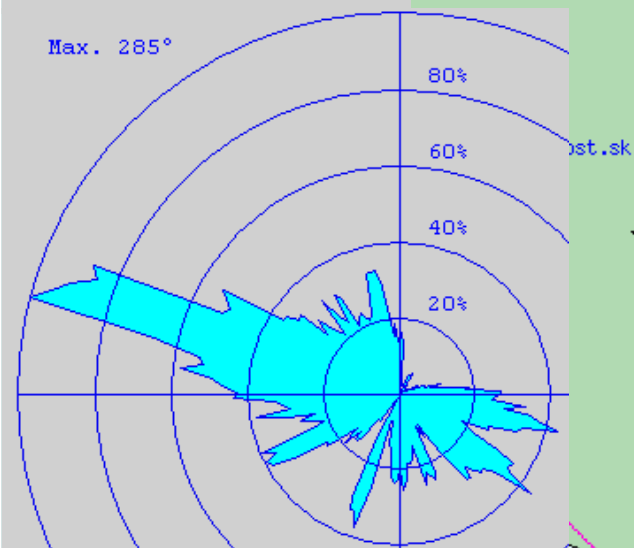




# IARU UHF CONTEST 2015 432 MHz OL3Z

218 x DL	76692	45%
99 x OK	11882	6%
31 x OM	10563	6%
14 x I	8841	5%
13 x PA	8630	5%
23 x SP	8423	4%
18 x S5	7945	4%
15 x HG	6635	3%
9 x 9A	4607	2%
8 x HB	4516	2%
6 x YU	3914	2%
5 x ON	3384	1%
13 x OE	3117	1%
3 x YO	2193	1%
3 x OZ	1999	1%
3 x F	1918	1%
3 x UR	1908	1%
2 x SM	1394	0%
2 x E7	1319	0%

**488 QSO**  
**169 759 pts**

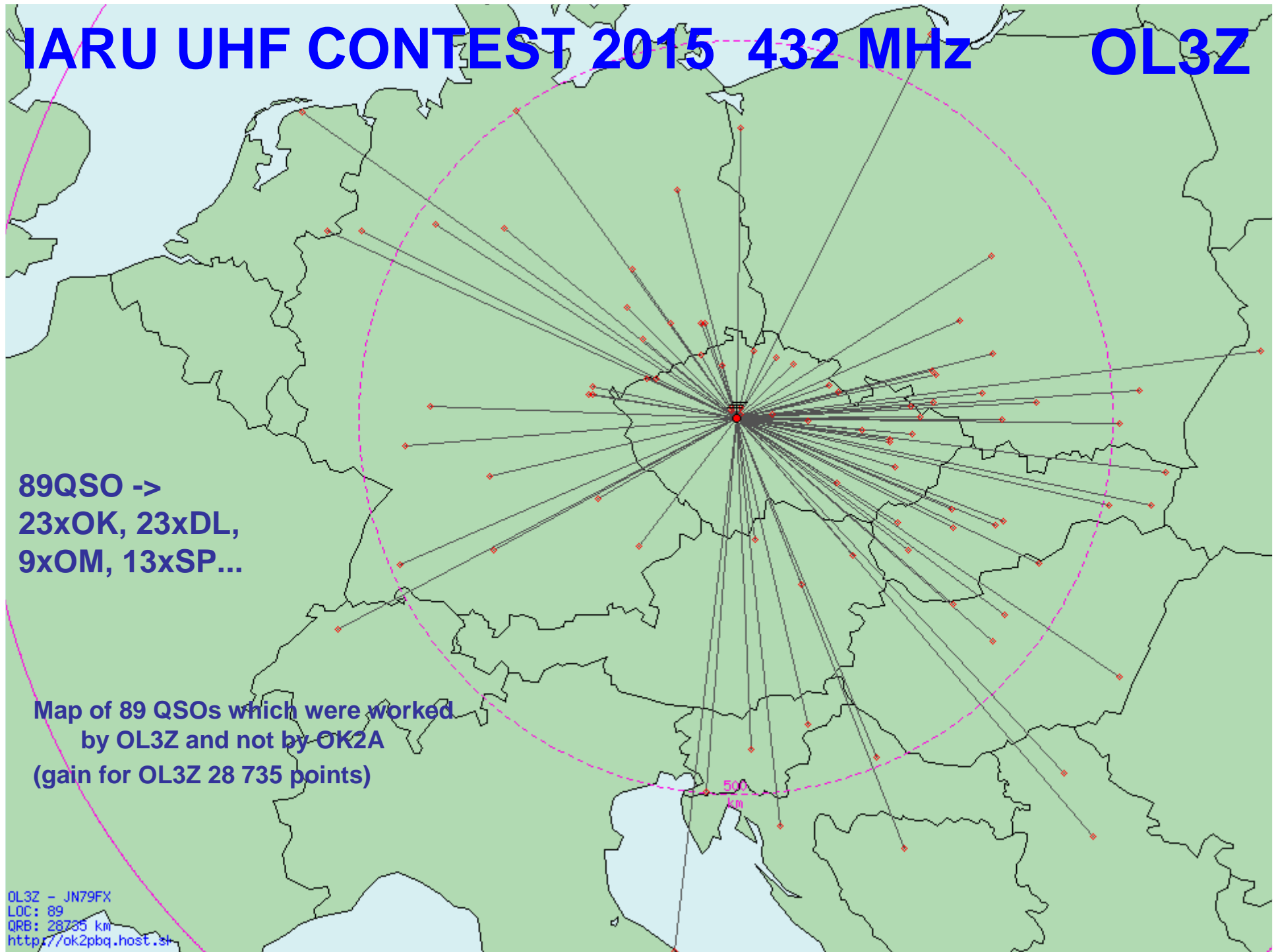


# IARU UHF CONTEST 2015 432 MHz OL3Z

89QSO ->  
23xOK, 23xDL,  
9xOM, 13xSP...

Map of 89 QSOs which were worked  
by OL3Z and not by OK2A  
(gain for OL3Z 28 735 points)

OL3Z - JN79FX  
LOC: 89  
QRB: 28735 km  
<http://ok2pbq.host.sk>

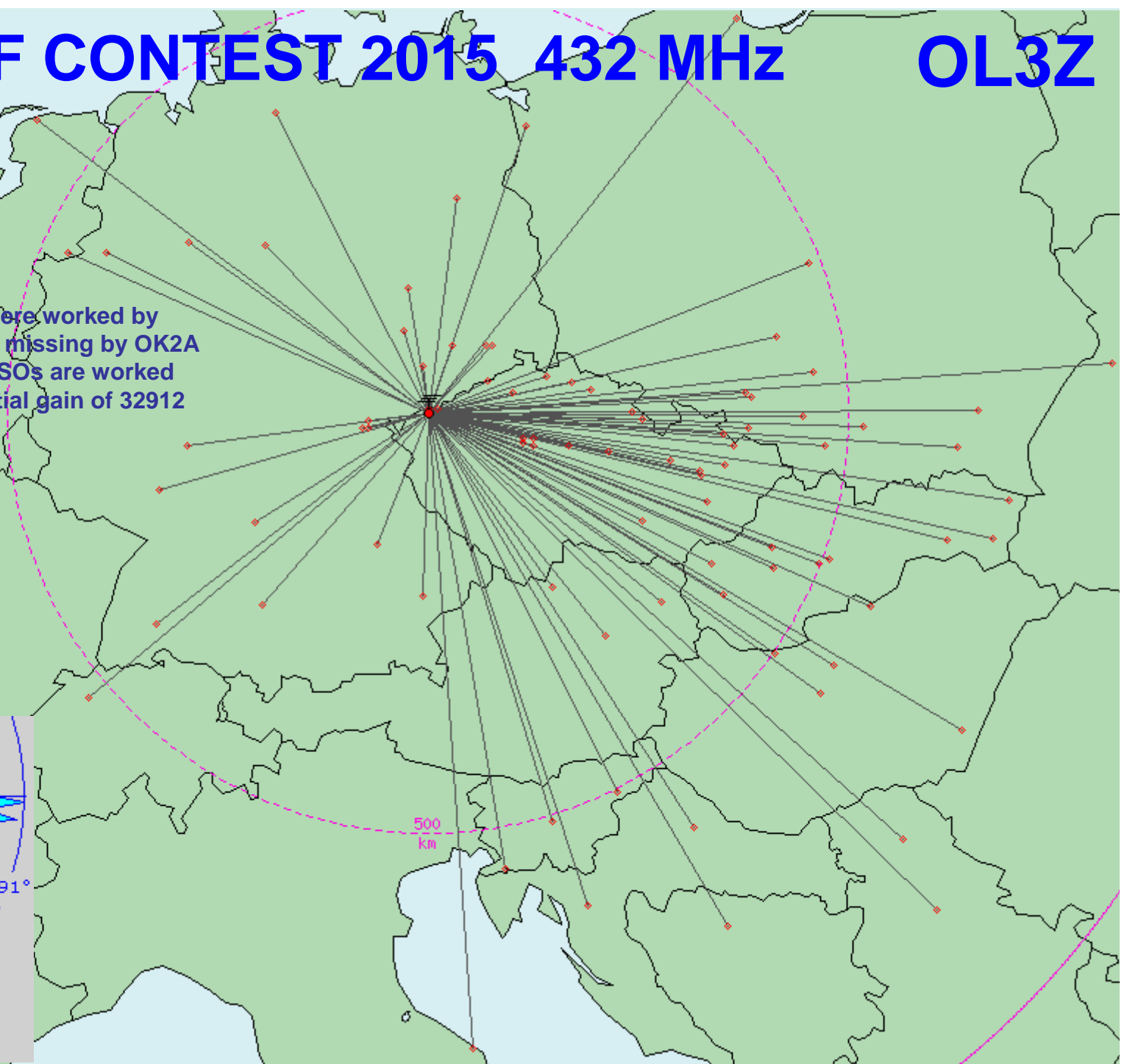
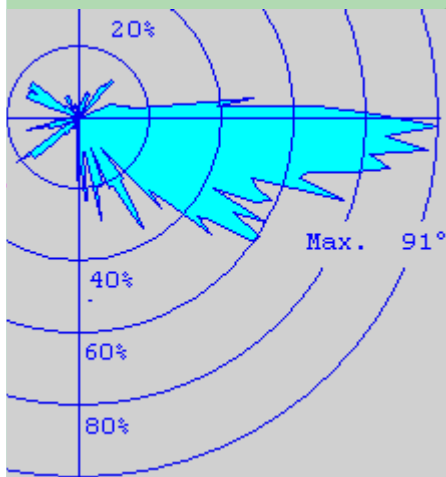


# IARU UHF CONTEST 2015 432 MHz

# OL3Z

Map of 89 QSOs which were worked by OL3Z and which are missing by OK2A in case that these QSOs are worked from JO60JJ. Potential gain of 32912 points

**89QSO ->**  
**23xOK, 23xDL,**  
**9xOM, 13xSP...**





# IARU UHF CONTEST 2015 432 MHz

List of OK stations which weren't worked by OK2A compared to QSO with DL0GTH, DR9A a OL3Z

## DL0GTH yes, OK2A no

OK5YY	JN89JT	437
OK2NJI	JN89MW	452
<b>OK2IGL</b>	<b>JN89UR</b>	<b>503</b>
OK1XDY	JO70SO	336
OK1TRM	JO70HC	279
OK1KT	JO70WE	364
OK1IBI	JO60EG	120

## DR9A yes, OK2A no

<b>OK2SSJ</b>	<b>JN89WW</b>	<b>703</b>
<b>OK2OHA</b>	<b>JN89PP</b>	<b>657</b>
<b>OK2IGL</b>	<b>JN89UR</b>	<b>688</b>

## [OK2A yes, OL3Z no (PD 2015)]

<b>OK1AIY/P</b>	<b>JO70SQ</b>	<b>198</b>
<b>OK1AVP</b>	<b>JN69QS</b>	<b>82</b>
<b>OK1GP</b>	<b>JO60JF</b>	<b>19</b>
<b>OK1IEI</b>	<b>JO70EC</b>	<b>118</b>
<b>OK1VAM</b>	<b>JN79IX</b>	<b>145</b>
<b>OK1VUF</b>	<b>JN79IO</b>	<b>163</b>

## OL3Z yes, OK2A no

OK1DEU	JO80EG	141
OK1FQK	JO70NA	48
OK1HEH	JN79VW	96
OK1IMJ	JO70EB	12
<b>OK1IVO</b>	<b>JO70JS</b>	<b>92</b>
<b>OK1JPP</b>	<b>JO70OQ</b>	<b>96</b>
OK1KHA	JO80CI	132
OK1KUR	JO70EC	16
<b>OK1MBT</b>	<b>JO70CO</b>	<b>72</b>
<b>OK1UJQ</b>	<b>JO70GC</b>	<b>16</b>
OK1VM	JO60VR	96
OK1XDY	JO70SO	104

OK2BRZ	JN89PQ	206
<b>OK2EW</b>	<b>JN89DE</b>	<b>159</b>
<b>OK2IGL</b>	<b>JN89UR</b>	<b>235</b>
OK2KPD	JO80UB	233
<b>OK2OHA</b>	<b>JN89PP</b>	<b>207</b>
OK2PMS	JN89WW	245
<b>OK2SSJ</b>	<b>JN89WW</b>	<b>245</b>
OK2UIN	JN89QI	222
OK5YY	JN89JT	169
OK6TT	JO80CI	132
OL6A	JO70GA	8

## [ OL3Z yes, OK2A no (PD 2015) ]

OK1CJH	JO70WG	107
OK1DEK	JN79EP	38
OK1DMV	JN78DR	140
OK1FDJ	JO70KF	41
<b>OK1IVO</b>	<b>JO70JS</b>	<b>92</b>
OK1JAF	JO70TA	84
<b>OK1JPP</b>	<b>JO70OQ</b>	<b>96</b>
OK1JPS	JO70CT	95
<b>OK1MBT</b>	<b>JO70CO</b>	<b>72</b>
OK1NIT	JO70UH	97
OK1OA	JO70MO	81
OK1RN	JN79QJ	93
OK1UFF	JO60XR	91
<b>OK1UJQ</b>	<b>JO70GC</b>	<b>16</b>
OK1VJN	JN79XU	109

OK1VPA	JN89WW	245
OK1VVS	JO60WP	85
OK1WGW	JO60WP	85
OK1XTX/P	JN78DR	140
OK1XZA	JN79NU	50
OK2BRX	JN89PR	206
OK2BSQ	JN89VS	241
OK2BVE	JN99JQ	313
OK2FSK	JN89DO	139
OK2KEA	JN89EJ	153
OK2KFK	JN79XN	118
OK2KOP	JO80NE	192
<b>OK2OHA</b>	<b>JN89QO</b>	<b>214</b>
OK7VV	JN99IO	309

**And that's all folks...**

**Matej, OK1TEH**  
***(OK2KKW/OK2A club)***  
**ok1teh@seznam.cz**