


38° Congressino Microonde

Modena

25 Ottobre 2015



6 GIUGNO 2015
Microwave Contest
Rain Scatter 10GHz

Come avviene il QSO RS

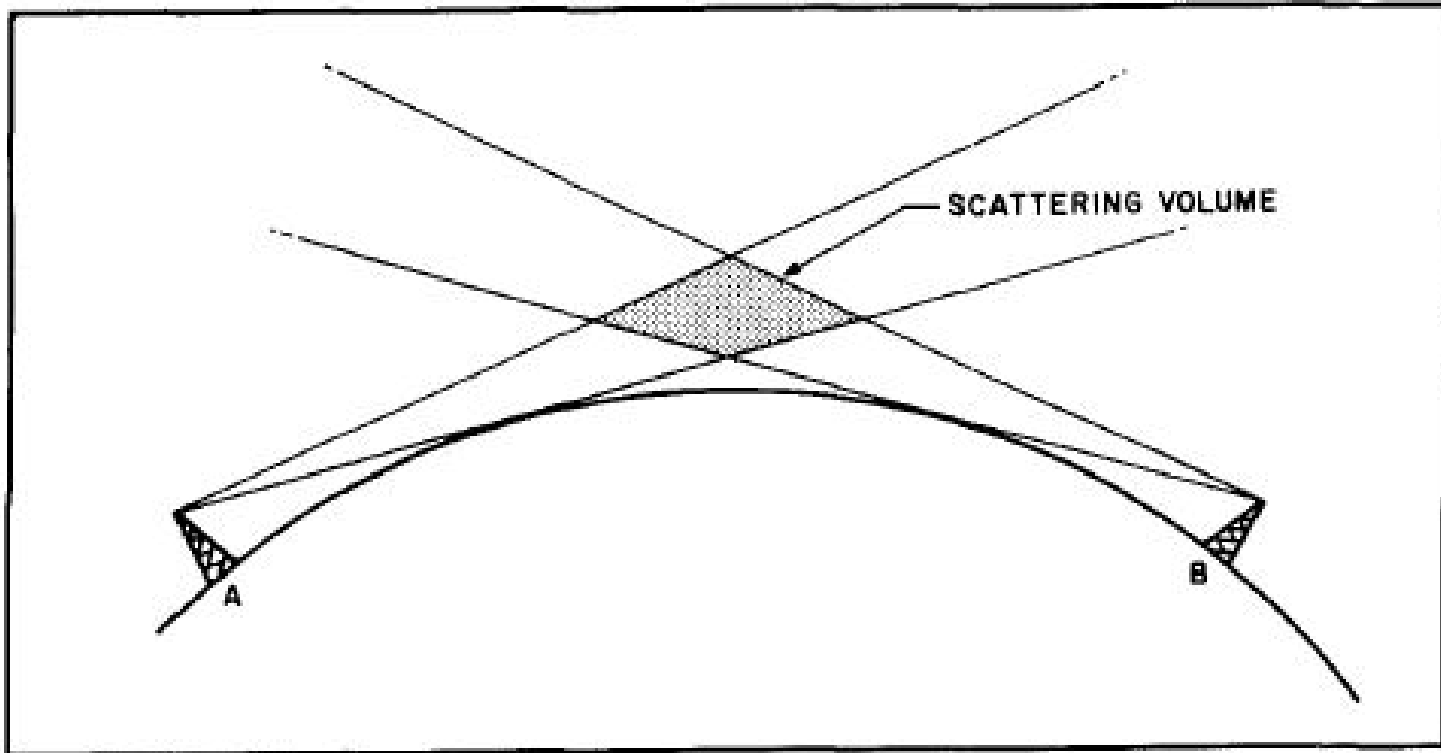
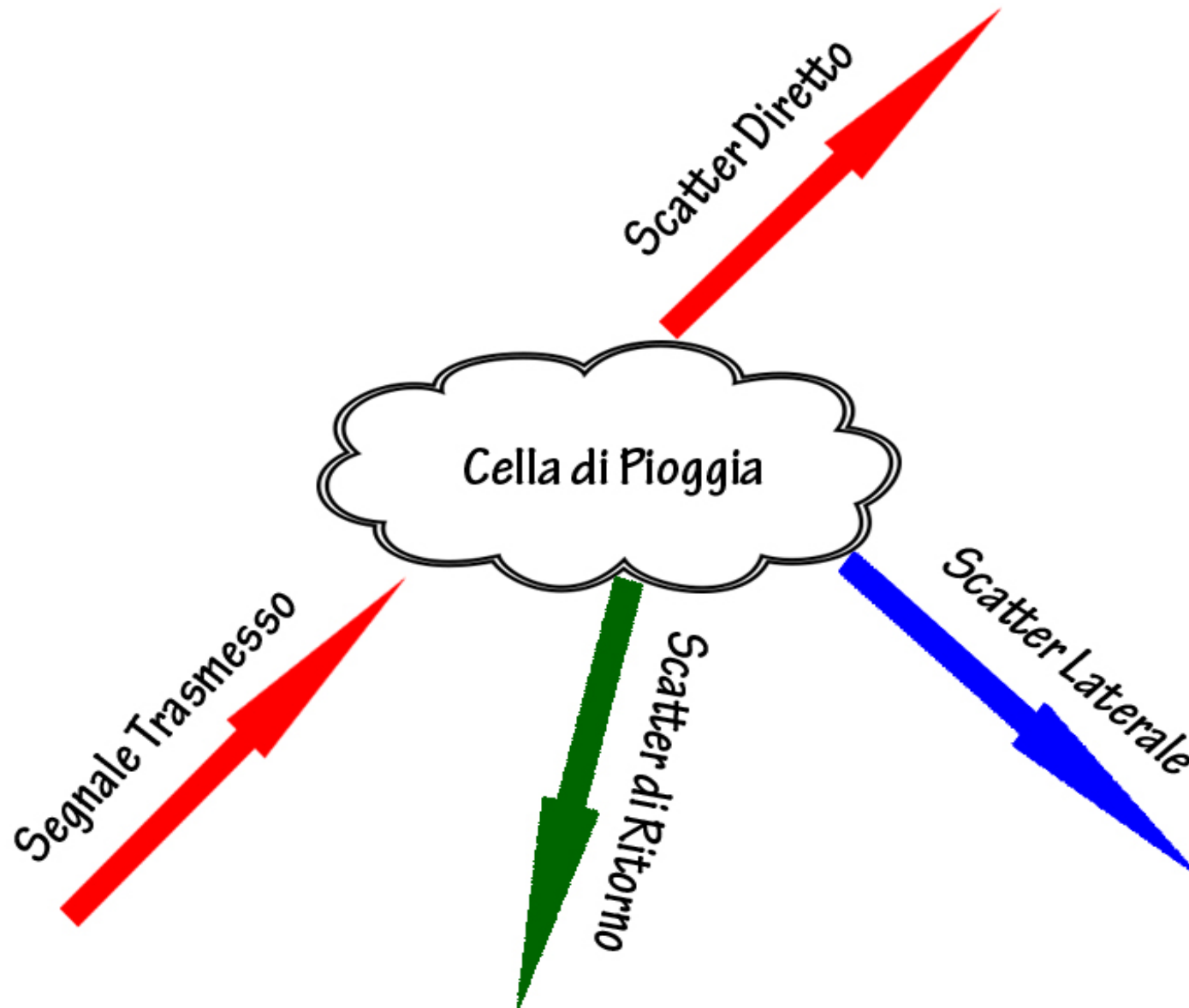


Figure 1. Though the antennas at A and B cannot "see" each other directly, they can both "see" a common region labeled the "scattering volume."

Direzionalità Degli Scatter



REGISTRAZIONI QSO RS

CW



DK5AI

SSB



9A2SB

FM



OE5VRL/5



I4XCC – OK1TEH



HA3GR



I6XCK

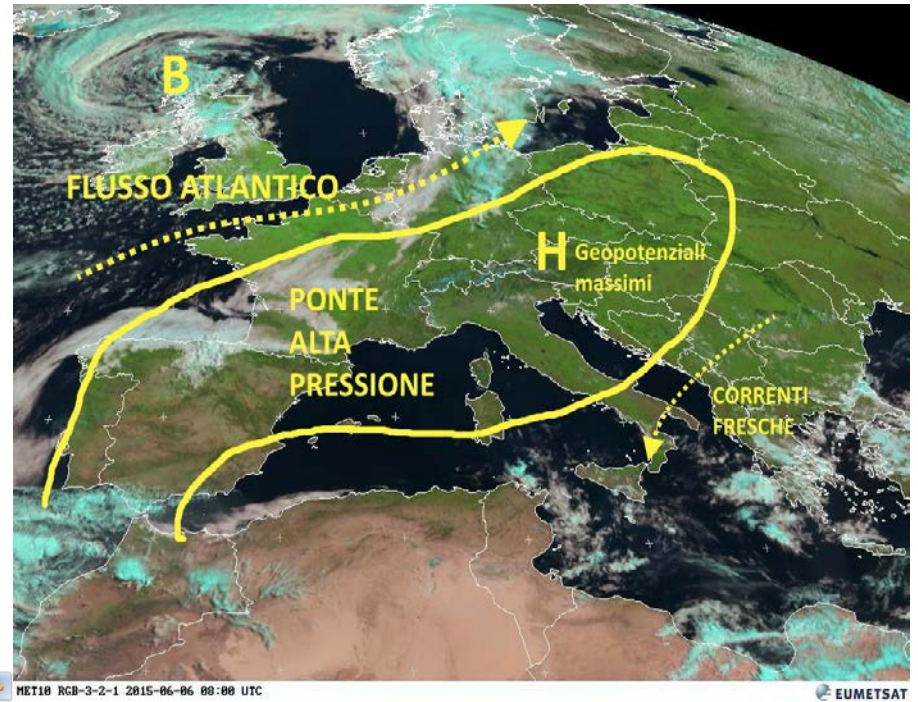
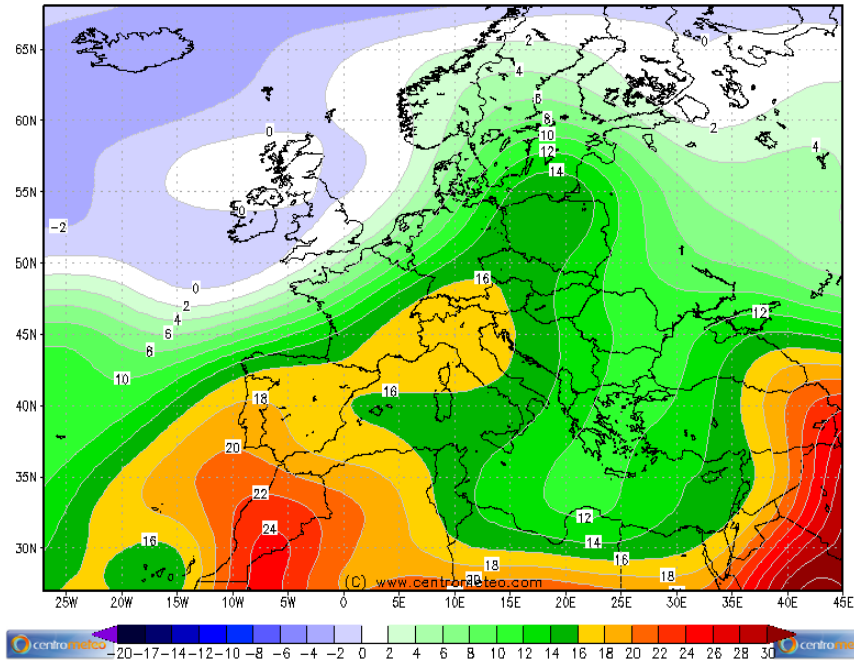
NUOVO RECORD ITALIANO



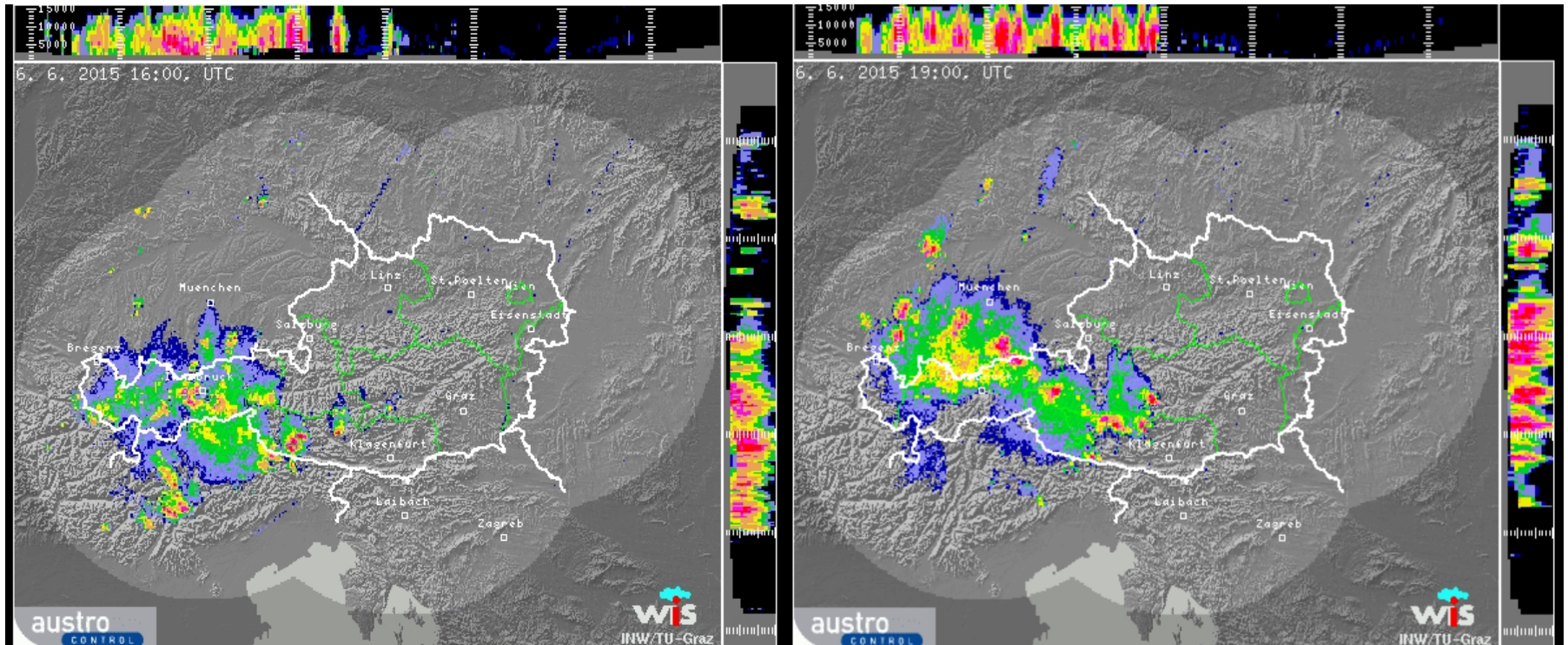
GIUGNO 2015 IQ1KW-OM6A JN34OP[RS]JN99JC 1009Km 10Ghz RAINSCATTER

Situazione Meteo Europa 6 Giugno 2015

NCEP/NCAR Reanalysis for Europe by www.centrometeo.com
850hPa Temperature (C) at: 12Z 06-06-2015



Eccezionale Attività Scatter per 6 Ore Altezza Media 13000m



456 QSO Dichiarati in Italia

Banda 10 GHz

Categoria singolo operatore 13 (x 35 overall)

n°	Call	Locator	Aslm	Antenna	Power	Qso	Dichiarato	Qso-DX	Qrb-DX	QRB calc.	Errori	QRB err.	Finale	Err %	QSO unici
1	I4XCC	JN63HW	200	120 OFS.	10	63	27,762	DJ1KP	774	27,764	3	1,000	26,764	4,8%	0
2	IK3GHY	JN65DM	0	1.2m offset	14	65	22,393	HA5UA/P	645	22,390	1	19	22,371	1,5%	0
3	I6XCK	JN63QO	20	offset 1,2 M	12	41	17,331	DLOGTH	807	17,325	4	1,972	15,353	9,8%	0
4	I3ZHN	JN65FP	15	1.mt. dam.	?	26	8,425	OM6A	612	8,426	5	1,418	7,008	19,2%	0
5	I4CVC	JN54VJ	22	60cm disk	10	19	7,719	OM6A	747	7,714	4	2,100	5,614	21,1%	0
6	IZ3KSO	JN55VU	1,500	80cm offset	2	28	2,798	IQ1KW	384	2,786	0	0	2,786	0,0%	0
7	I1PSC	JN44MJ	50	P.F. 70CM	450	4	2,199	EA5CV/5	972	2,200	0	0	2,200	0,0%	0
8	I3VWK	JN55TT	1,000		2	15	2,062	IQ1KW	370	2,061	1	35	2,026	6,7%	0
9	IW3HXR	JN55QO	400		1	17	1,939	OK1YA	511	1,937	0	0	1,937	0,0%	3 0di 5
10	IW3SPI	JN66OD	165	1,30 mt Dish	4	8	2,090	OK2C	511	2,090	1	291	1,799	12,5%	0
11	I1KFH	JN45FG	120	disco 0,9 mt offset	4	5	1,243	OM6A	889	1,242	0	0	1,242	0,0%	0
12	IW1CKM/2	JN44PQ	1,668	disco 50 cm	7	6	939	IZ3KSO	235	939	0	0	939	0,0%	0
13	I3JVS	JN55SS	500	parabola 100 cm	8	9	559	S58RU	190	561	0	0	561	0,0%	0
14	IK3FHP	JN55RQ	180	Disco 1 m	3	4	234	S58RU	196	233	0	0	233	0,0%	0
15	IK3TCH	JN55MP	1,400	60 CM	20	1	201	IZ1EVF	201	201	0	0	201	0,0%	0
16	IZ3KVB	JN55UR	100		1	1	16	IZ3KSO	16	15	0	0	15	0,0%	0
17	IZ3BUQ	JN55UR	100		1	1	16	IZ3KSO	16	15	0	0	15	0,0%	0
18	IK3ZGB	JN55UR	100		1	1	16	IZ3KSO	16	15	0	0	15	0,0%	0

Banda 10 GHz

Categoria multi operatore 14 (x 35 overall)

n°	Call	Locator	Aslm	Antenna	Power	Qso	Dichiarato	Qso-DX	Qrb-DX	QRB calc.	Errori	QRB err.	Finale	Err %	QSO unici
1	IQ1KW	JN34OP	1,950	dish 1,50 m	10	38	18,356	OM6A	1,009	18,328	1	507	17,821	2,6%	0
2	IW3IGM	JN55PS	1,700	PAR 120	4	45	12,971	OM6A	675	12,971	0	0	12,971	0,0%	0
3	IQ3VI	JN55OQ	1,600	parabola 70 cm	8	29	3,746	IQ1KW	335	3,742	3	404	3,338	10,3%	0
4	IW5CZU/5	JN54JD	0	DISH 80 cm.	3	12	2,029	S58RU	293	2,024	1	223	1,801	8,3%	0
5	IZ3ZUB	JN66EA	1,552	parabola 1mt	1	13	1,483	I6XCK	280	1,483	1	42	1,441	7,7%	0
6	I3NGL	JN65DR	30	Disco cm 100	1	5	536	I4XCC	201	536	0	0	536	0,0%	0

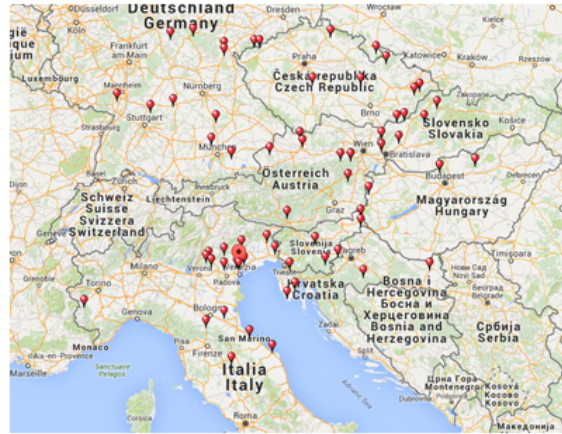
I4XCC

**QSO 63 - PUNTI 27762
DX - DJ1KP - 774Km**



IK3GHY

**QSO 65 - PUNTI 22393
DX - HA5UA/P - 645Km**



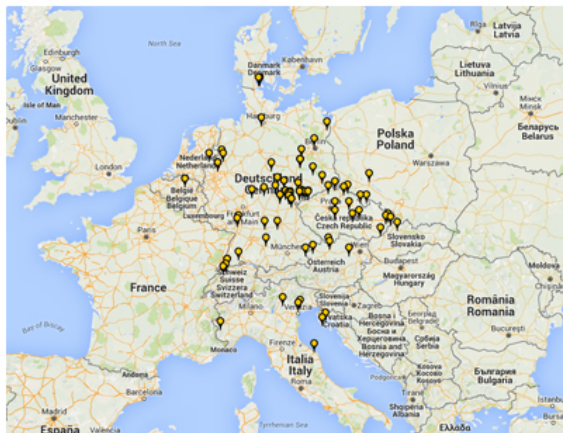
IQ1KW

**QSO 38 - PUNTI 18356
DX - OM6A - 1009Km**



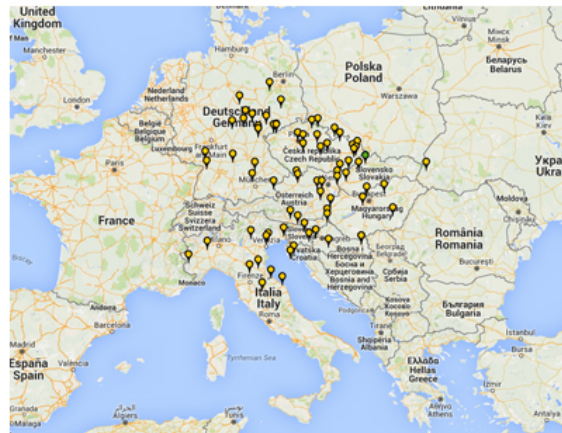
DL6NAA

**QSO 87 - PUNTI 23229
DX - I6XCK - 747Km**



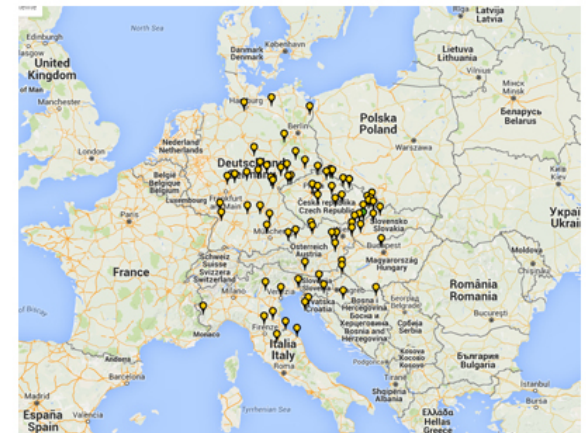
OM6A

**QSO 78 - PUNTI 31836
DX - IQ1KW - 1009Km**



OM3KII

**QSO 82 - PUNTI 30353
DX - IQ1KW - 926 Km**



TOP OVER 800 Km ITALIA

1° IQ1KW - OM6A - 1009 Km

4° IQ1KW - OK3KEG - 970 Km

7° I1KFH - OM6A - 889 Km

2° IQ1KW - OL9W - 992 Km

5° IQ1KW - OM3KII - 926 Km

8° I5CTE - OM6A - 827 Km

3° I1PSC - EA5CV/5 - 972 Km

6° IQ1KW - OM3KTR - 893 Km

9° I6XCK - DL0GTH - 807 Km

NUOVO RECORD ITALIANO 10GHz

I4CVC/7 – OK1JKT 982Km → IQ1KW – OM6A 1009Km

I MIGLIORI 5 DI SEMPRE

OZ1FF – F6APE → 1099Km

IQ1QW – OM6A → 1009Km

F6DWG/P – TK/F5BUU → 997Km

IQ1KW – OL9W → 992Km

I4CVC/7 – OK1JKT → 982Km

IQ1KW Doppio Record

IQ1KW JN34OP → OM6A JN99JC
1009Km

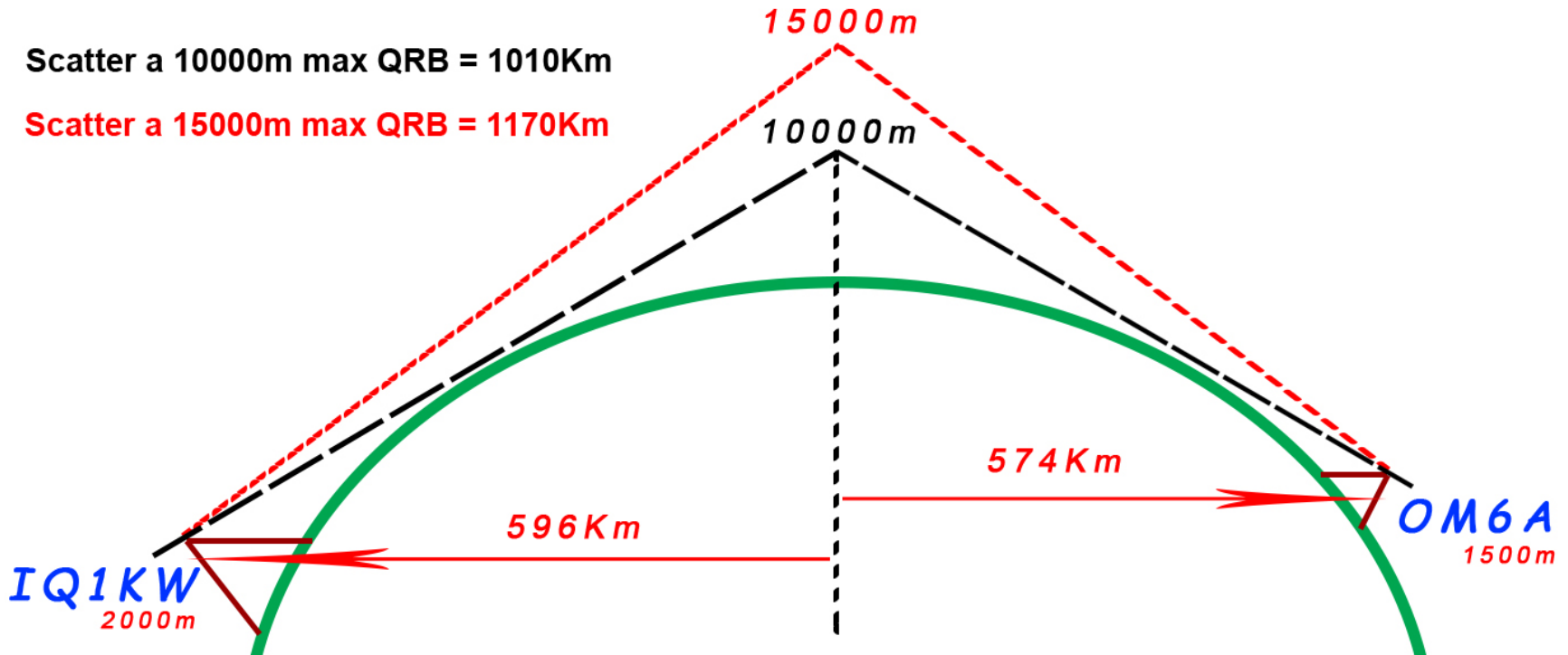
IQ1KW JN34OP → OL9W JN99CL
991Km



Analisi del QSO

Scatter a 10000m max QRB = 1010Km

Scatter a 15000m max QRB = 1170Km



$$\text{SCP } 15.000\text{m} \rightarrow (436\text{Km} \times 2) + 160\text{Km} + 138\text{Km} = 1170\text{Km}$$

$$\text{SCP } 10.000\text{m} \rightarrow (356\text{Km} \times 2) + 160\text{Km} + 138\text{Km} = 1010\text{Km}$$

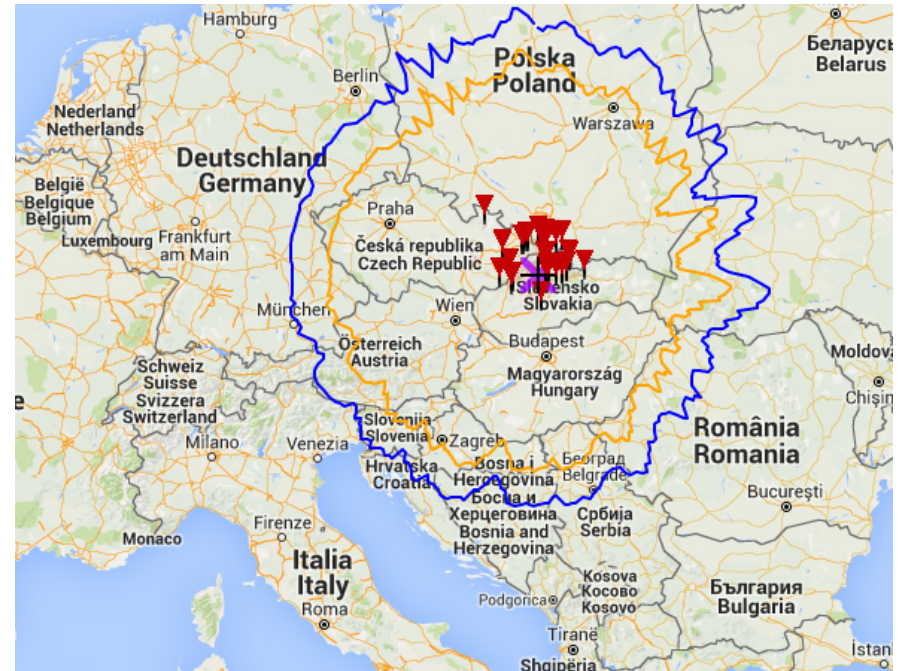
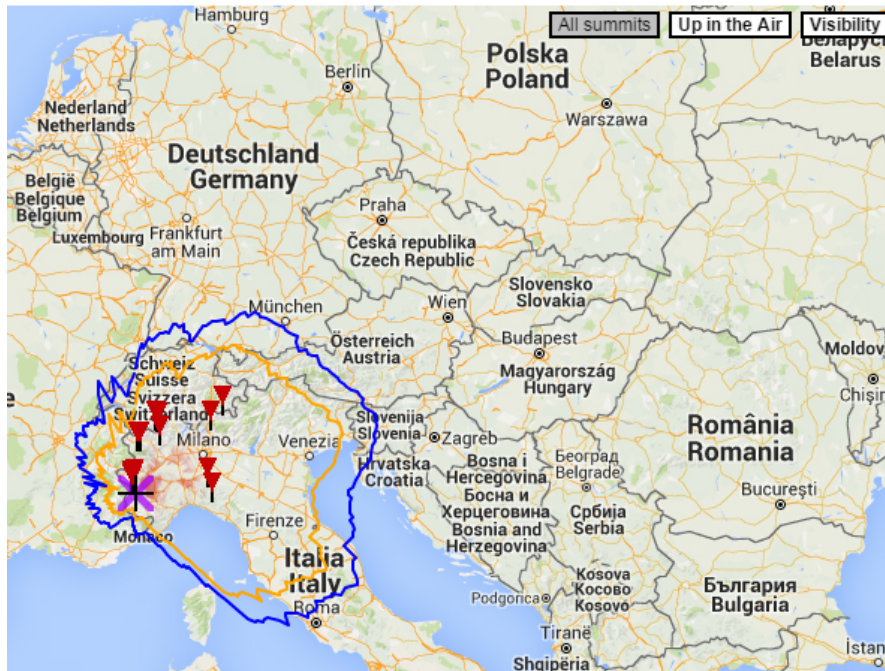
$$\text{SCP } 8.000\text{m} \rightarrow (319\text{Km} \times 2) + 160\text{Km} + 138\text{Km} = 936\text{Km}$$

} Volume di Scatter

Orizzonti Scatter delle 2 Stazioni

IQ1KW – JN34OP 2000m

OM6A – JN99JC 1500m

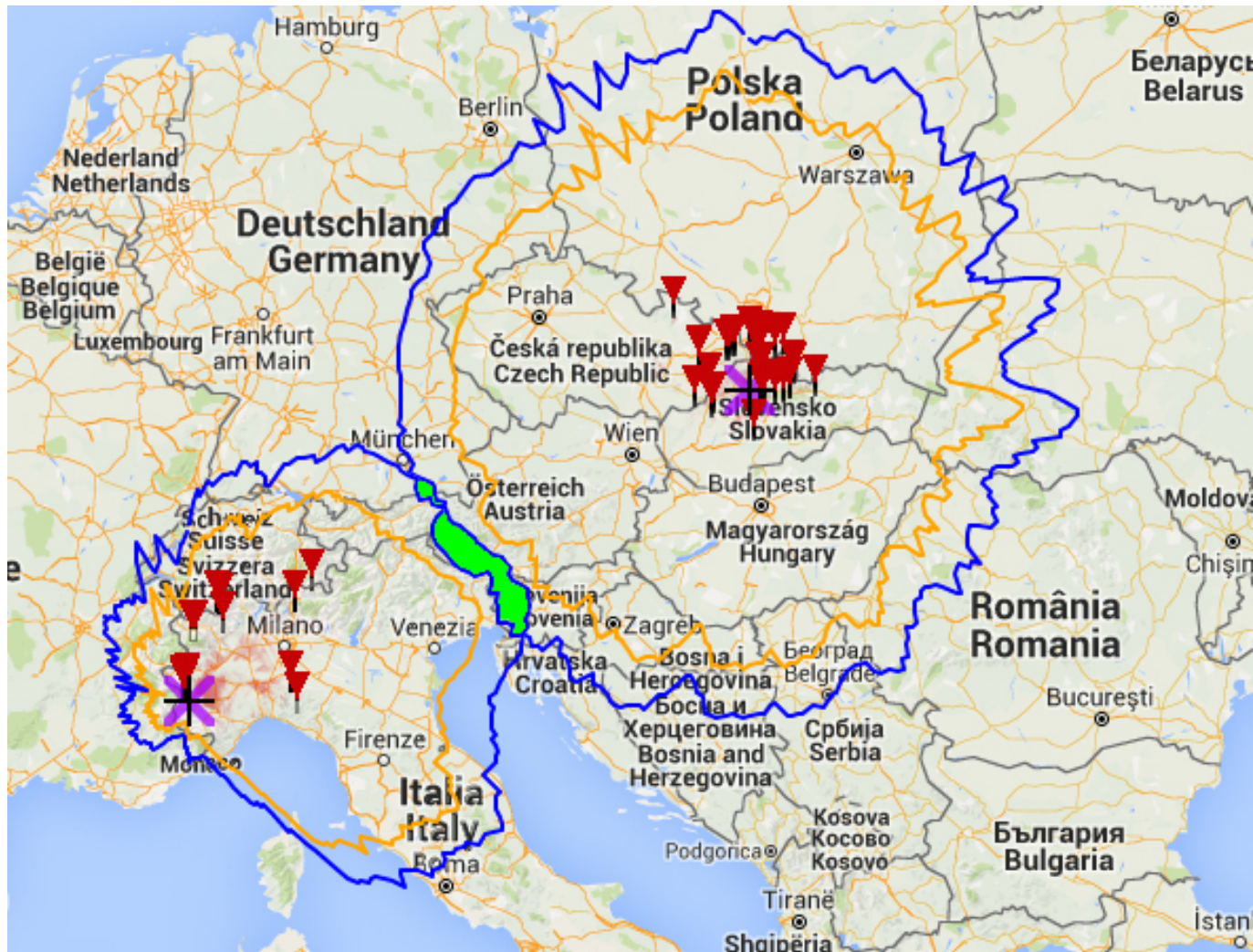


I 2 Orizzonti Uniti

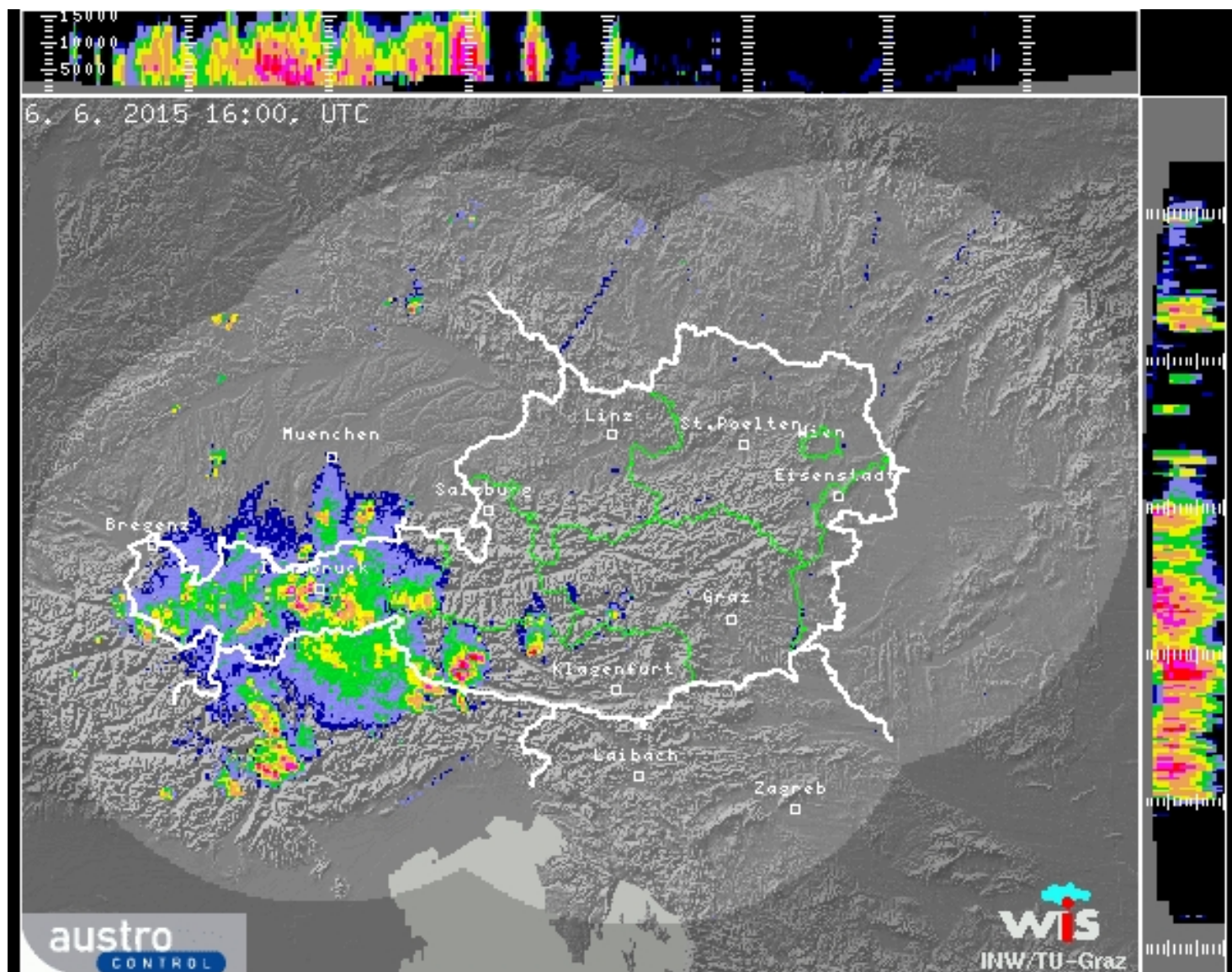
IQ1KW Orizzonte di Scatter a 15000m = 522Km

OM6A Orizzonte di Scatter a 15000m = 537Km

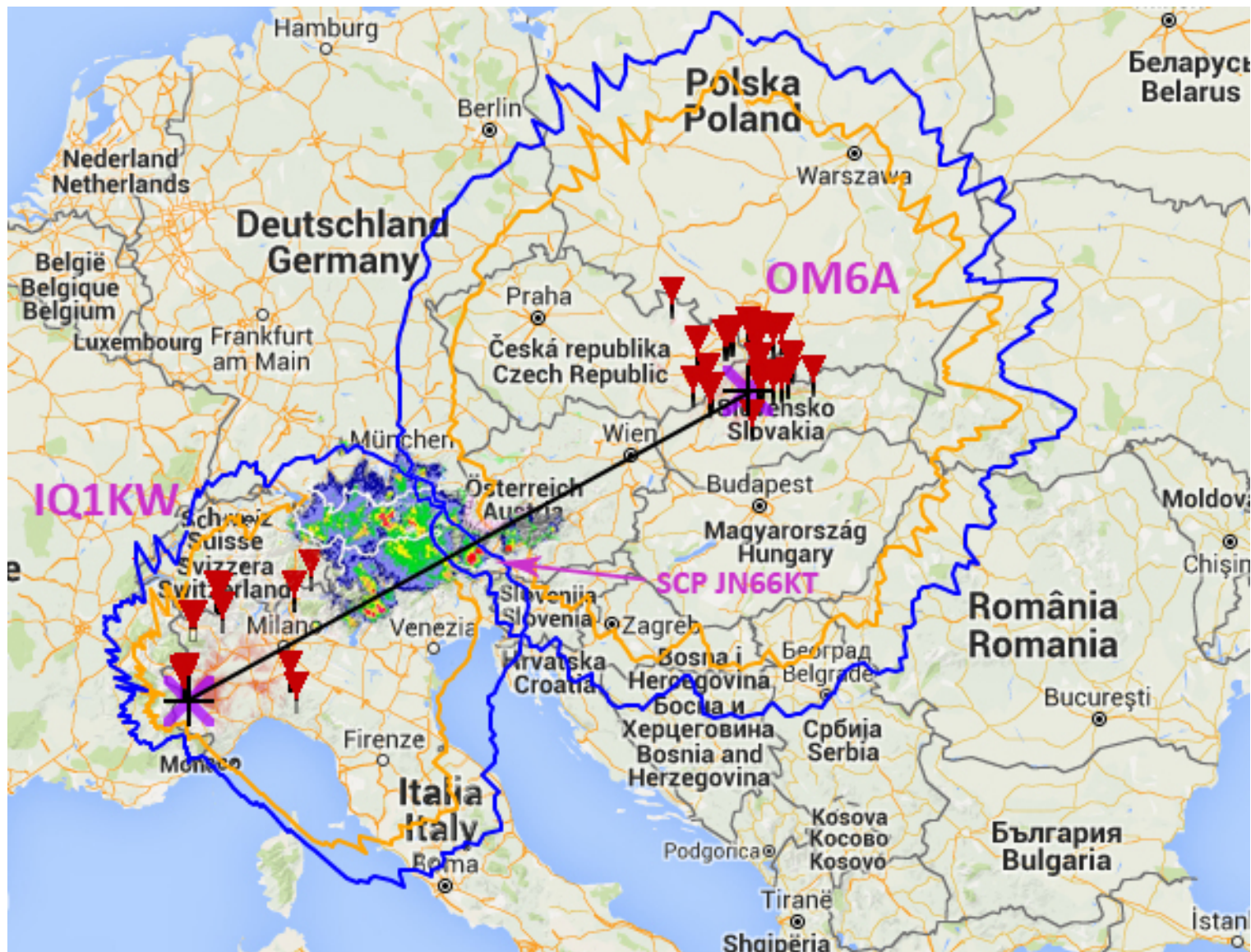
Orizzonti di Scatter Sovrapposti per 50Km



Attività Scatter ore 16.00 - 6 Giugno 2015



Verifica Dei Dati



IQ1KW ASCOLTI PARTICOLARI

LX1DB/B – JN39CO 556Km
DISCO A 40° DI ELEVAZIONE

OM3KKI – JN88UU 926Km
..... AUDIO FM



RS QSO IN 23 E 13 cm

DL7QY - JN59BD 435Km
1,2GHz RS SSB QSO

HA8MV/P - KN06HT 659Km
2,3GHz RS SSB QSO



GRAZIE DELL'ATTENZIONE

Giorgio IK3GHY

Marcello IK1YWB

Manuel IU3CQP

25 OTTOBRE 2015