

A low cost start on the GHz bands from an HF CW ops perspective

Simon Jude, G7SOZ

Web: www.g7soz.net Twitter: [@g7soz](https://twitter.com/g7soz)

Normal operation



Inspiration

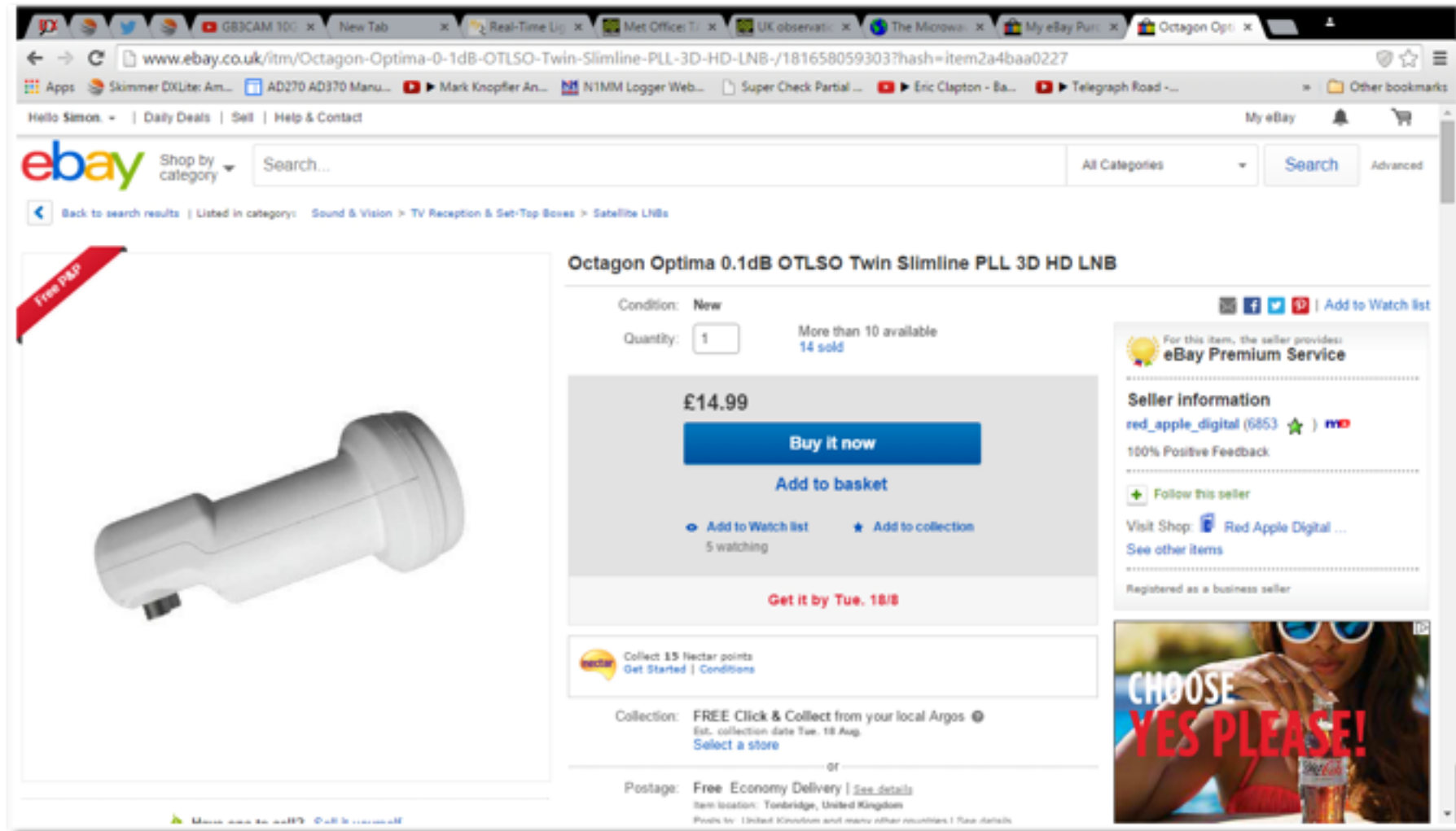


<http://g4vxe.blogspot.co.uk/2013/07/a-10ghz-receiver-using-lbnf-and-rtl-sdr.html>



www.g4jnt.com/pll_lnb_tests.pdf

Low cost LNB for 10GHz (3cms)

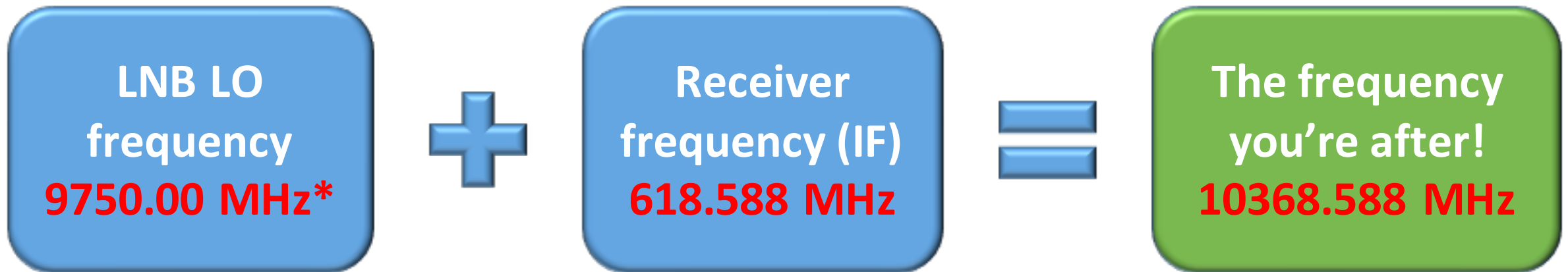


The screenshot shows an eBay product page for an Octagon Optima 0.1dB OTL SO Twin Slimline PLL 3D HD LNB. The item is a white, cylindrical satellite LNB with a black connector. The listing includes the following details:

- Condition:** New
- Quantity:** 1 (More than 10 available, 14 sold)
- Price:** £14.99
- Buttons:** Buy it now, Add to basket, Add to Watch list (5 watching), Add to collection
- Delivery:** FREE Click & Collect from your local Argos (Est. collection date Tue, 18 Aug), or Free Economy Delivery
- Seller:** red_apple_digital (6853) with 100% Positive Feedback, registered as a business seller.
- Service:** eBay Premium Service
- Collection:** FREE Click & Collect from your local Argos (Est. collection date Tue, 18 Aug)
- Postage:** Free Economy Delivery

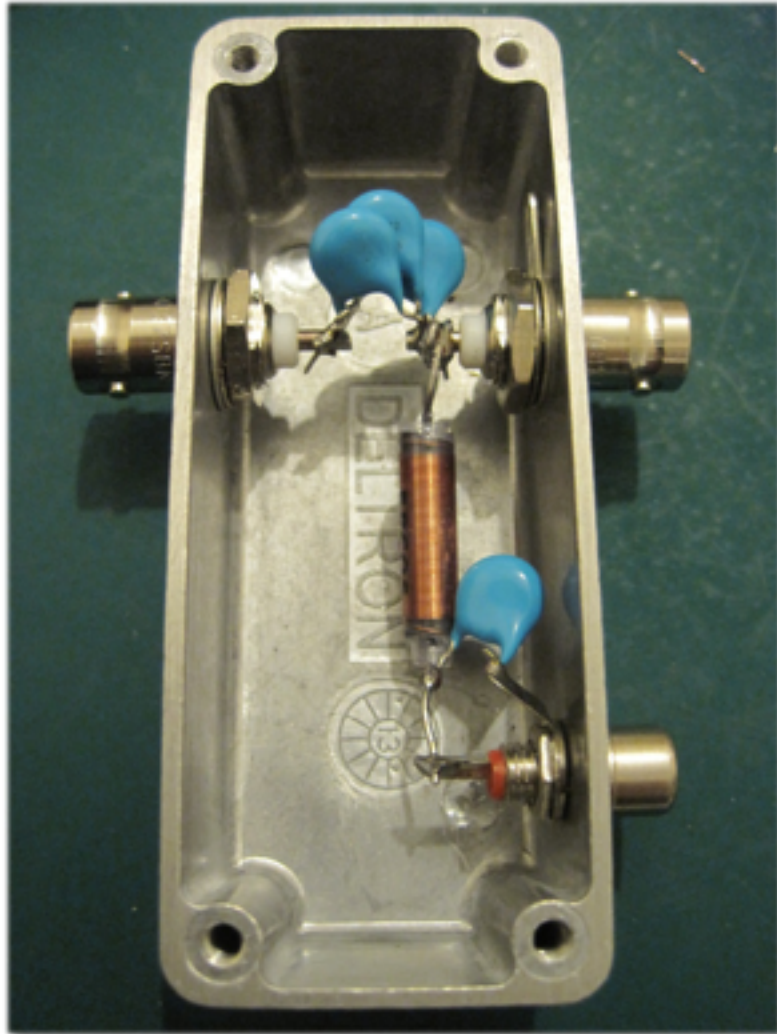
The page also features a "Free P&P" banner, a "Get it by Tue, 18/8" delivery promise, and a "Choose YES PLEASE!" promotional image at the bottom right.

Low cost LNB for 10GHz



*When fed with 12v

Powering the LNB



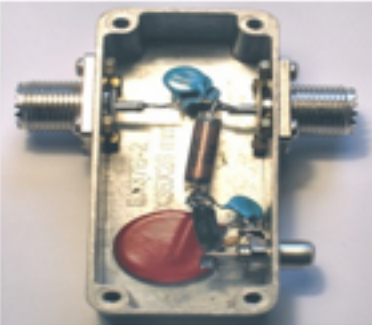
GM3SEK's Amateur Radio

www.ifwtech.co.uk/g3sek/in-prac/best-of.htm#0904

DC Injector/Extractor for Coax Feedlines (April 2009)

Back to: [Contents list](#) [In Practice' homepage](#)

Handles 1kW+, 1.8-50MHz - but **only** if you use the specified components for C1 and RFC1!



- Components
 - Murata 10nF 1kV capacitors for [C1](#) (3 in parallel req'd), [C2](#) (minimum order multiple = 10, but well worth keeping some on hand)
 - [BFC1 RFC2](#)
 - [V24ZA50P varistors](#) (NB minimum order multiple = 5)
 - [Diecast box](#) - I'm not very happy with the quality of casting, but they're just about adequate.
 - SO239 (2 req'd) - not critical, eg [these](#).
- Construction notes

To mark out the diecast box for the two SO239 sockets, you can download [this template](#) (updated from an earlier column). Print at 100% size and cut out a single piece of paper containing the SO239 outlines A and C. Wrap this template around the underside of the box and use the guide lines to adjust it accurately to position, and then tape it in place and mark through the paper using a sharp scribe.

There is just enough space to fit M3 bolts and nuts, although self-tapping screws are quite adequate.

To make the lid fit, you will need to file away the flanges on the underside.

Receivers



Tried two approaches:

Low cost RTL SDR dongle (£7) with netbook and cheap Windows tablet (£60)

Old scanner

GB3CAM

A local beacon is handy!



The screenshot shows the GB3CAM website with a yellow background. On the left, there is a map of the UK with red lines indicating microwave links. Below the map is a section titled "10 GHz 'Beaconspot' reports as of Oct 2011" with a "spare" button. Further down is a photo of a "1W PA and driver module". At the bottom left is a photo of a "3cm Waveguide slot antenna and location". The main content area on the right has a yellow header with the title "GB3CAM Cambridge microwave beacons" and location "IO92WI Wyton Cambridgeshire". It lists frequencies: "3cm: 10368.755 MHz" and "1.2cm: 24048.870 MHz", and provides contact information for reports. A red box contains "Latest news" with two entries: "25.10.11 We now have a red LED light beacon beamed between Cambridge and Newmarket" and "19.06.13 An infra-red beacon has been added along side the red beacon". Below this is a paragraph about the history of the beacons. Two grey boxes provide technical details for the "10 GHz beacon" and "24 GHz beacon", including frequency error, output power, ERP, and air dates. At the bottom right, a photo shows the antenna array on a tower, with text explaining the LHS and RHS units and their location relative to the rack.

GB3CAM Cambridge microwave beacons
IO92WI Wyton Cambridgeshire

3cm: 10368.755 MHz 1.2cm: 24048.870 MHz

reports always welcome, either direct (gb3cam@earf.co.uk) or via www.beaconspot.eu

Latest news

25.10.11 We now have a red LED light beacon beamed between Cambridge and Newmarket. See: http://www.earf.co.uk/light_beacon.htm

19.06.13 An infra-red beacon has been added along side the red beacon - see link above for details

The first of the two Cambridge microwave beacons came on-air on 11th June 2008. This was the 10 GHz beacon. Although Wyton is only some 35m asl, the beacon antennas are 30m above ground level - well above the local tree cover. There is some obstruction due to other antennas on the same site however.

10 GHz beacon	24 GHz beacon
Frequency error: +69Hz (24.09.15)	Frequency error: see G4BAO link at bottom this of page
Tx output power: 3W	Tx output power: 250 mW
erp: +7 dBW	erp: +4 dBW
On air as of 11.06.08	On air as of 18.09.08
Beacon keeper: G4HJW	Beacon keeper: G4BAO

LHS: 24 GHz multiplier/PA/antenna.
RHS: 10 GHz antenna.

These units are mounted on the eastern side of the tower (the camera is looking SE).

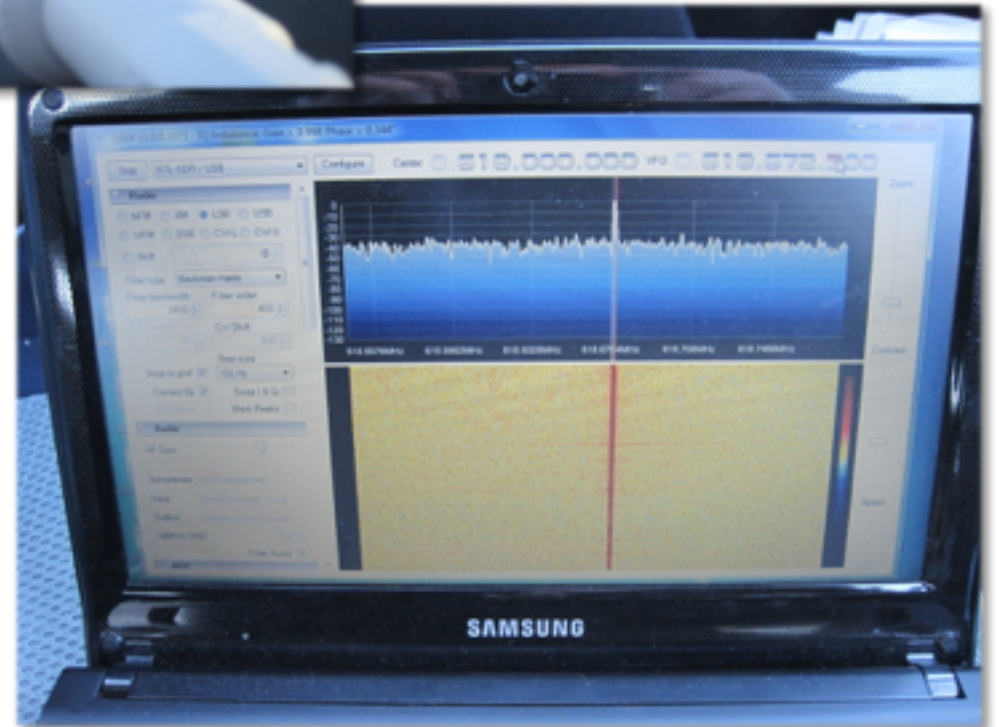
The antenna's are located about 15m from the rack.

On 3cm, the transmitter power is 3W, but this is reduced by loss in the cable to 0.5W at the antenna.

Initial tests



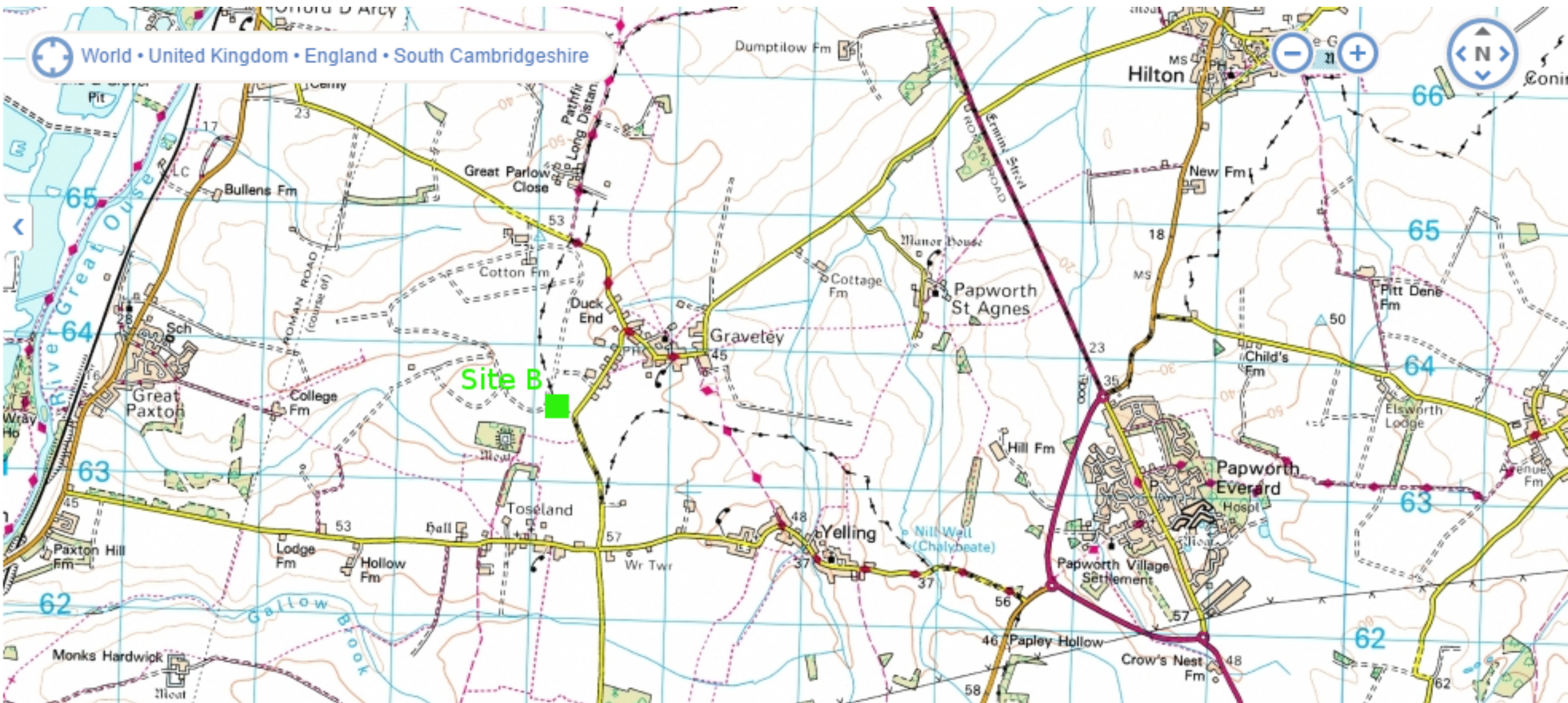
Initial tests



It works!



Initial tests



Time for a dish!



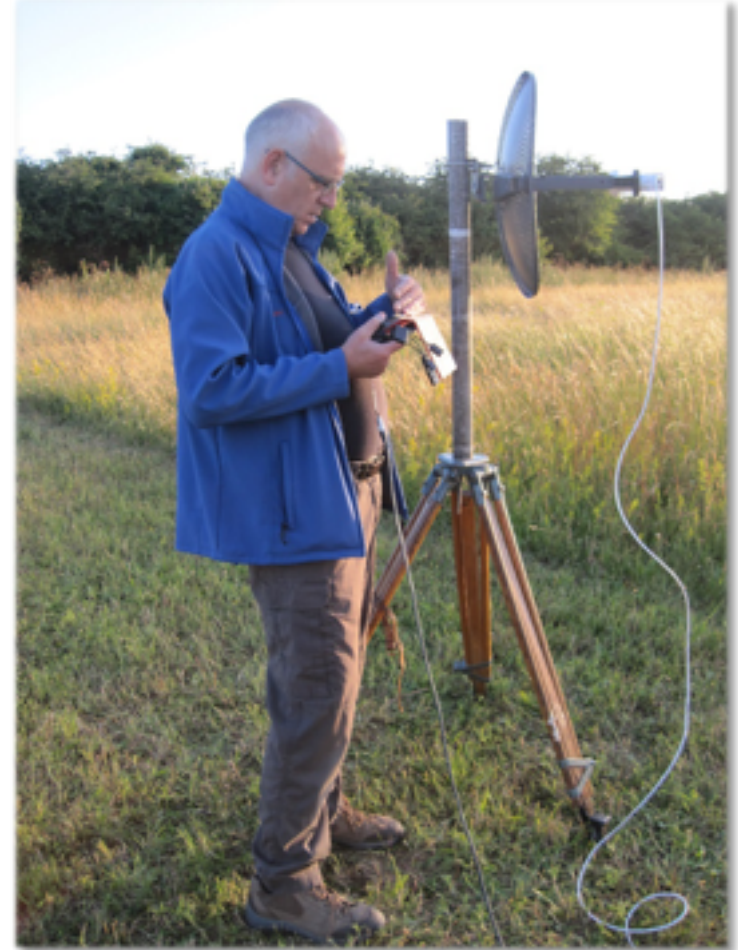
Sky dish, 50p
mounting
bracket and
loaned tripod
(thanks John!)



Time for a dish!



Adjustment
and
alignment is
very
important

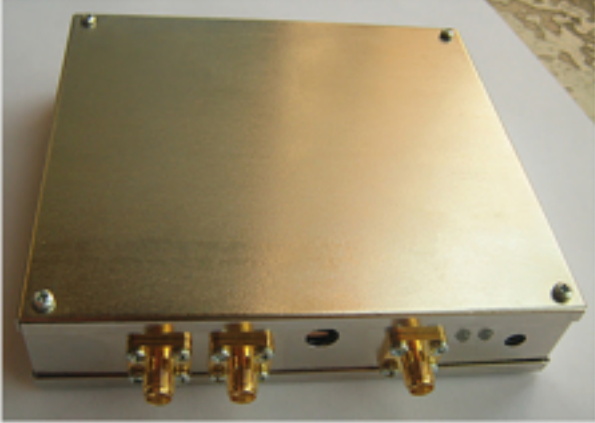


My first crossband QSO!



I'm still
waiting for
the QSL
card ;-)

Low cost 23cms



1296 MHz Transverter v.2.2

Description:

Transverter for 23cm amateur radio band.

The new design v 2.2 of our transverter features better performance and some new functions. Our new transverter's design (v 2.2) offers better performance and some new functions.

Application:

Due to its small dimensions and light weight this transverter is suitable for portable or stationary operation.

How to order:

Send a mail to: iz5hp@dir.bg

Features

- Emmission Modes: SSB, AM, CW , FM
- 2W output power
- Low noise figure GaAs HEMT input stage
- High performance UP / DOWN converters
- High stability TCXO
- Internal Tx/Rx switch
- Split-frequency operation option (selectable, require additional soldering)
- Internal Directional Coupler
- PTT can be switched by connecting PTT to ground, by RF power (selectable) or by DC voltage
- RX/TX switching:
 - push PTT input to ground
 - RF VOX
 - apply DC voltage to coax cable
- Output SWR indicator - bi-color LED
- Optimal input power indicator - bi-color LED
- Integrated Sequencer
- Repeater operation option : -28 / -6 MHz LO shift TX (selectable)
- Working via repeater: default -28 MHz LO offset (selectable)

- 2 watts out
- Ideal for FT817
- Very low cost - ~£120
- Excellent service and speedy delivery

www.sg-lab.com

23cms antennas

F9FT **AFT**

English version Presentation of AFT Where to buy it? Site en français Deutsch

RADIO-AMATEUR ANTENNAS

50/55 MHz
144/146 MHz
430/440 MHz
144/146+430/440 MHz
1250/1300 MHz
2300/2450 MHz

Telesecrets.mails
Tact France
Technical booklet .pdf
E-MAIL
© Caren, St 1 - 07/2009

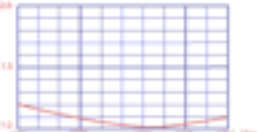
23 elements
Yagi antenna
1260 to 1300 MHz
Part Nr. 220623



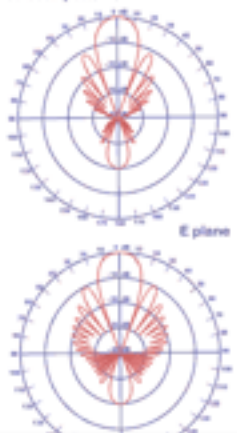
Electrical data

Radiation at 1296 MHz	
Effective electrical length	≈ 7.43 l
Isotropic gain	≈ 18.1 dBi
Aperture angle @ -3 dB	- E-plane: 2 x 10.1° - H-plane: 2 x 10.3°
First side lobe set	- E-plane: - 10.6 dB @ 27° - H-plane: - 9.3 dB @ 28°
Rear protection	- 21 dB
Average stray radiation	- E-plane: - 37 dB - H-plane: - 28 dB
Bandwidth	
Gain @ -1 dB	≈ 1246 to 1326 MHz
Nominal impedance	50 W
Impedance match bandwidth @ SWR<1.3/1	1260 to 1302 MHz
Acceptable RF power (continuous duty)	≈ 300 W
Array of 2 or 4 antennas (optimized stacking distance, from center to center of elements, for minimal side lobe radiation)	
- E-plane - Electrical distance	3.05 l
- E-plane - Practical distance	0.70 m
- H-plane - Electrical distance	3.05 l
- H-plane - Practical distance	0.70 m
Mechanical data	
Connector	N
Overall length	1.75 m
Mass	≈ 4.8 kg

SWR curve



Radiation patterns



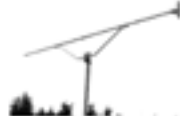
www.f9ft.com

WiMo **WiMo Antennen & Elektronik GmbH**

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Your shopping cart is empty

select language Search Start Info & Help Imprint News Contact Information

SHF 2344 [Info freight charges](#)



The new design "SHF 2344" is the 'little brother' of the 5 m version and is quite a 'hammer' with its 3 m length. The antenna has a high bandwidth and may be used just as well for ATV operation. Of course, this antenna is supplied fully assembled; the awkward manual mounting process has been replaced by the assembly robots. We offer a replacement dipole in case this would ever become necessary (Part No. 18400.01), and also a special dipole which is mounted upside down to facilitate 2x2 H setups and has a 180° phase difference to the normal dipole (Part No. 18400.02).

Order No.	SHF-2344	156.00 €	Buy now
18400.01	Spare dipole	32.60 €	Buy now
18400.02	Markup for special dipole 180°	13.50 €	Buy now

[Info freight charges](#)

[Antenna comparison of various 23cm Yagis by Dubus 1/2006 \(English, JPG, 170KB, opens in a new browser window\)](#)

SHF 2328 [Info freight charges](#)



The "SHF 2328" model is the ideal start-up model for 1.3 GHz; the antenna is a mere 1.5 m long and has 16 dBi gain. The mechanical data is almost identical to the other SHF-antennas. The electrical characteristics are absolutely identical with the SHF long yagis except for the 3-dB beamwidth and the gain. We offer a replacement dipole in case this would ever become necessary (Part No. 18400.01), and also a special dipole which is mounted upside down to facilitate 2x2 H setups and has a 180° phase difference to the normal dipole (Part No. 18400.02).

www.wimo.de

First QSOs on 23cms

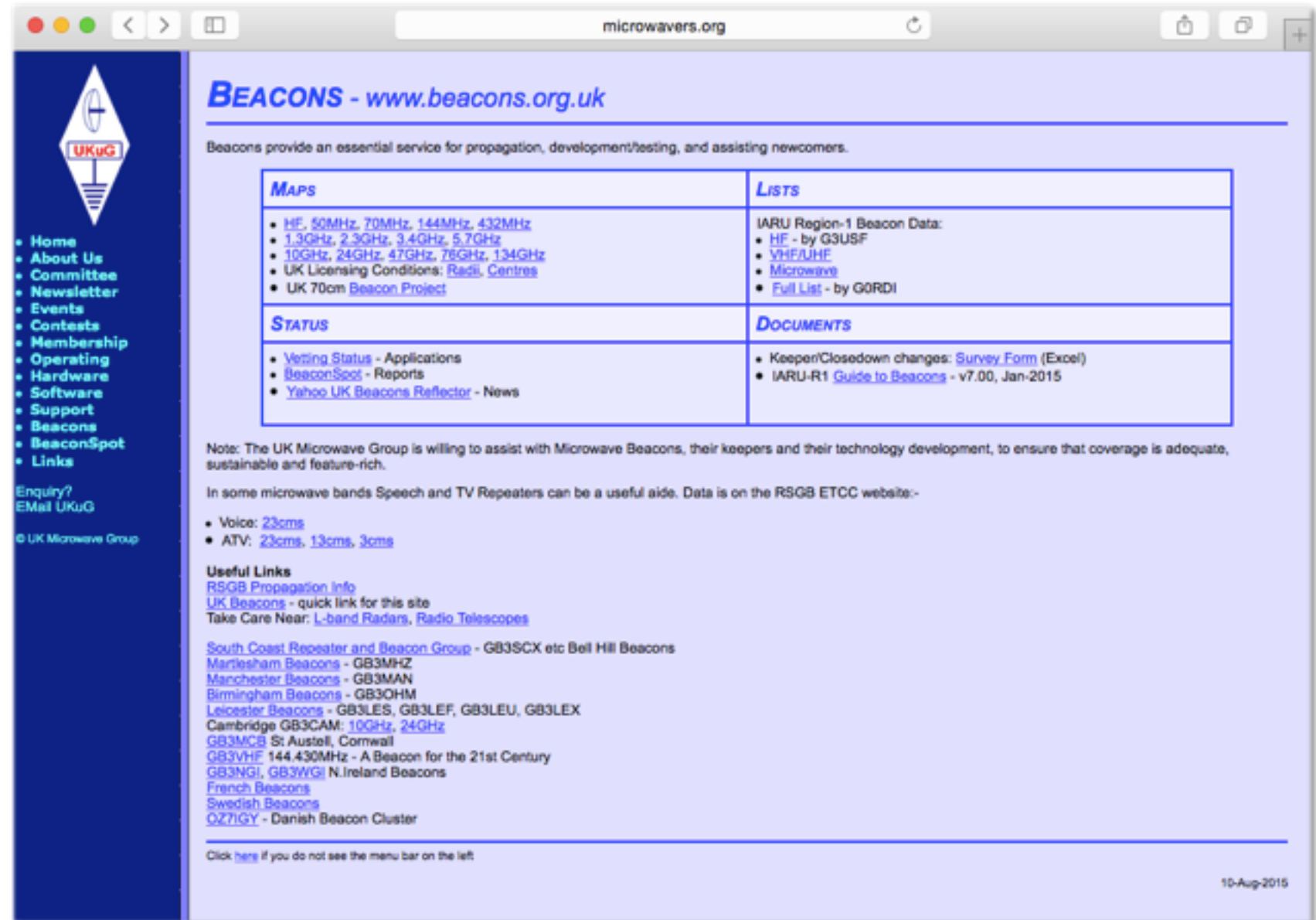


UK Activity contests are useful for testing

Things you'll need to consider

Beacons

You need a
beacon and/or
local
microwaver



The screenshot shows a web browser window with the address bar displaying "microwavers.org". The website has a blue header with the title "BEACONS - www.beacons.org.uk". Below the header, a paragraph states: "Beacons provide an essential service for propagation, development/testing, and assisting newcomers." A table with four columns lists various resources:

MAPS	LISTS
• HF, 50MHz, 70MHz, 144MHz, 432MHz • 1.3GHz, 2.3GHz, 3.4GHz, 5.7GHz • 10GHz, 24GHz, 47GHz, 76GHz, 134GHz • UK Licensing Conditions: Radio Centres • UK 70cm Beacon Project	IARU Region-1 Beacon Data: • HF - by G3USF • VHF/UHF • Microwave • Full List - by G0RDI
STATUS	DOCUMENTS
• Vetting Status - Applications • BeaconSpot - Reports • Yahoo UK Beacons Reflector - News	• Keeper/Closedown changes: Survey Form (Excel) • IARU-R1 Guide to Beacons - v7.00, Jan-2015

Below the table, a note states: "Note: The UK Microwave Group is willing to assist with Microwave Beacons, their keepers and their technology development, to ensure that coverage is adequate, sustainable and feature-rich." Another paragraph mentions: "In some microwave bands Speech and TV Repeaters can be a useful aide. Data is on the RSGB ETCC website:-"

Below this, there are links for "Voice: [23cms](#)" and "ATV: [23cms](#), [13cms](#), [3cms](#)".

A section titled "Useful Links" includes:

- [RSGB Propagation Info](#)
- [UK Beacons](#) - quick link for this site
- Take Care Near: [L-band Radars](#), [Radio Telescopes](#)

A long list of specific beacons follows, including "South Coast Repeater and Beacon Group", "Martlesham Beacons", "Manchester Beacons", "Birmingham Beacons", "Leicester Beacons", "Cambridge GB3CAM", "GB3MCS", "GB3VHF", "GB3NGI", "French Beacons", "Swedish Beacons", and "QZ7IGY".

At the bottom, a small text says: "Click [here](#) if you do not see the menu bar on the left". The date "10-Aug-2015" is in the bottom right corner.

www.microwaves.org/indexb.htm

Get yourself an Elmer!

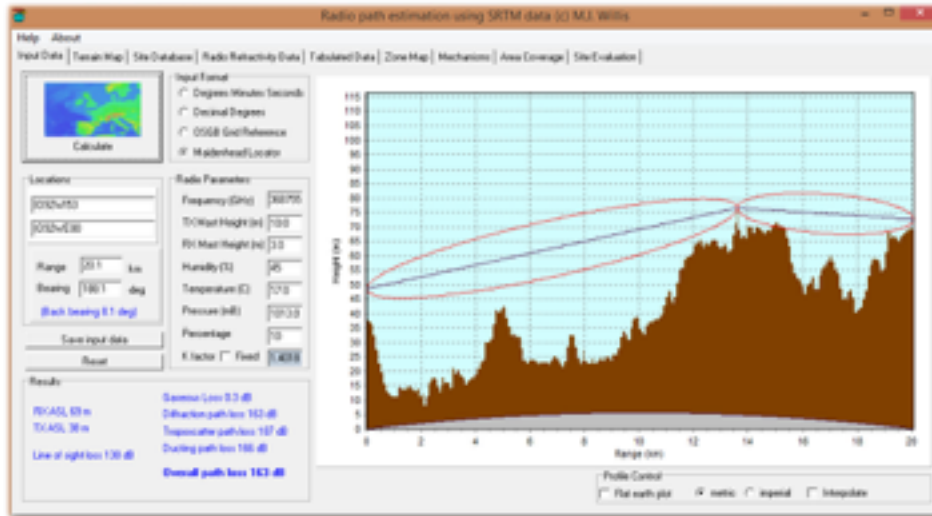


I bought the wrong house!



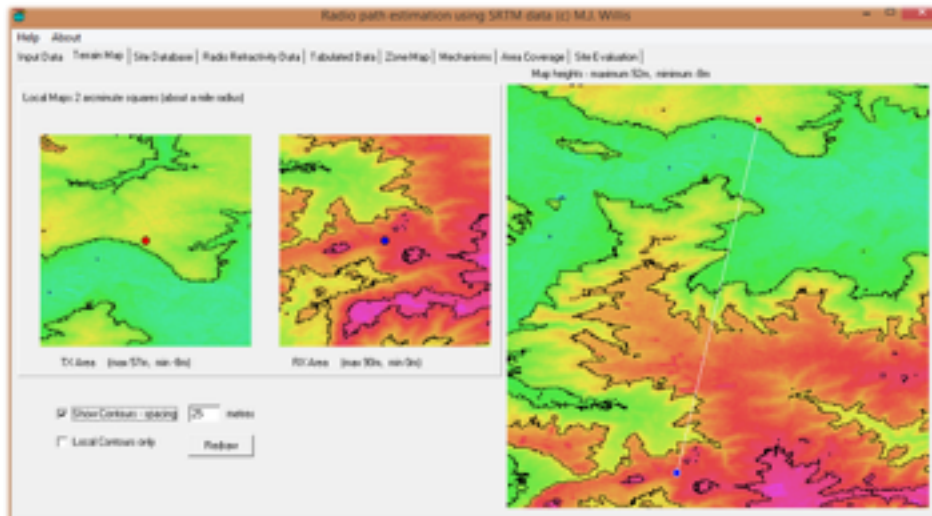
Portable operation may be
your only option

Testing portable sites



A bit of research is needed to prevent frustration

Use Google and Bing maps to identify possible sites



Then test sites using terrain path software

Testing portable sites



A site that may look good on paper may be useless due to trees, hedges, road signs, buildings etc.

Have your locator - easy with a GPS

Dishes have an extremely sharp beamwidth so **a compass is a must**

Testing portable sites

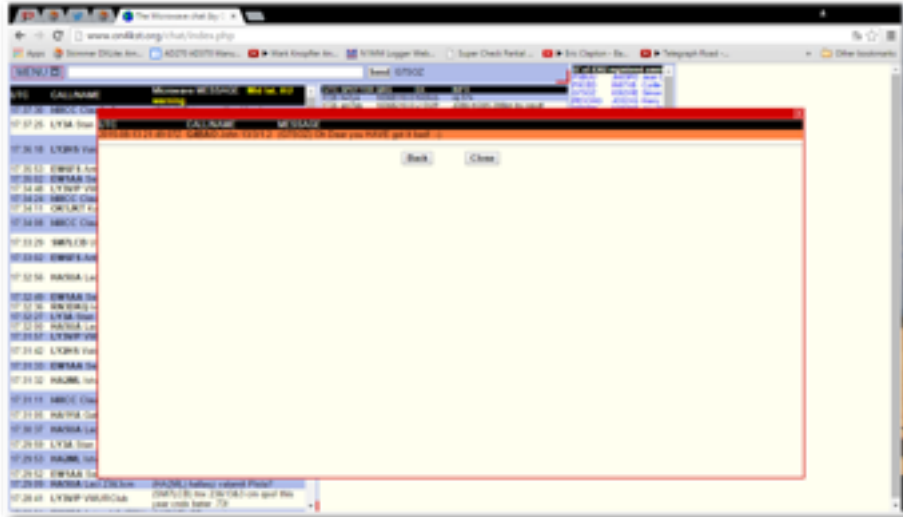


Make sure the dish/tripod are setup accurately

Only make very small dish movements
– no swinging around wildly like on 2m!

Testing portable sites

Talkback (144.175MHz) and/or instant messaging (e.g. ON4KST or Twitter) is vital



Some form of data connection may be useful (e.g. ON4KST, maps etc)

Be prepared to answer questions from passers by!

ON4KST

The Microwave chat (by C x)

www.on4kst.org/chat/index.php

Apps Skimmer DXLite: Am... AD270 AD370 Manu... Mark Knopfler An... N1MM Logger Web... Super Check Partial ... Eric Clapton - Ba... Telegraph Road ... Other bookmarks

MENU Send G7SOZ

159 of 6375 registered users

UTC	CALL/NAME	Microwave MESSAGE	High lat.
19:49:18	G4BRK Neil 23-9 .206	▶▶▶ Anyone for 23cm pse? ◀◀◀ CQ on .206	
19:49:07	OZ3Z Anders	(G3XDY) CLG is running. AP have to be close to me before signal rise	
19:49:07	IK3GHI Giorgio 23_13_3	(IK2RLN) 205 chiama verso te ssb	
19:49:04	G0EHV /P Eddie	GW8ASD .281	
19:49:00	SP9MM Miki 23cm	(HA5UA) Laci pse time of our qso - PC problem	
19:49:00	DL0VV Club 1296.190	(LY2R) nw calling	
19:48:58	SM4DXO Mats-Ingvar	(SM6VFZ) 1 min	
19:48:55	GW8ASD Tony	(G0EHV) RR freq?	
19:48:53	ES10X/2 Aleksandr	(YL2OW) i hear you	
19:48:52	G0BRC Club	(G8XVJ/P) .235 pointing N	
19:48:46	OZ9KY 1296.188	(DF9IC) RR Calling 2 U	
19:48:44	OH3MCK Petri	(ES6FX) nil here as well. trx for try	
19:48:43	SK0CT 1296.180 6m dish	(LY3A) 180 ?	
19:48:37	SM0BSO Peter	(ES5PC) After OH3LWP	
19:48:36	SM4DXO Mats-Ingvar	(SM6VFZ) SAS1524 near U has passed. But SAS1488 now soon!!	
19:48:35	LY2R Paulius	(R1DM) Slawa normalni	
19:48:34	G3XDY John 23.13.9.6.3	(OZ3Z) Looking 160 now	
19:48:33	PA0BAT Gerard 23-1.2cm	*** Any for 23 cm? ***	
19:48:32	SP9K Slawek	hi hi	
19:48:29	I5CTE Piero	(IK0SMG) cw 250, chiama io ok?	
19:48:29	HA5UA Laci 238.3cm	(IV3DXW) im tx nw big AP is on	
19:48:27	OK1TEH Matej 23cm▶	(IV3DXW) ge sure .280cw i call	
19:48:26	SP9K Slawek	Jacek gdzie ty jesteś	
19:48:26	ES3RF Gennadi	(YL2OW) %(!	
19:48:24	DL0VV Club 1296.190	(SM5AZN) pse qrx in qso	
19:48:22	LY2HS Vaidas	SK0EN Ok	
19:48:21	G8CUL Mike 23 & 13	(PA4GT) Calling you now	
19:48:20	G0EHV /P Eddie	(GW8ASD) free to try?	
19:48:15	IK1ZOF Dom. 23 cm	(IQ3VO) nil?	
19:48:15	IW4BLG pierluigi 23cm	(OK1TEH) GE, wanna try?	
19:48:13	DF9IC Henning 23-13-9	(OZ9KY) in 3 minutes?	
19:48:12	G0MJW Mike .170	(G8PNN) its me	
19:48:12	IK0SMG Pino	(I5CTE) Piero ok	
19:48:11	GU6EFB Keith	G3TCU/P On freq now	

UTC	SPOTTER	ORG	DX	INFO
1948	sp2wgy	1296185.0	SK0EN	JO94PL<TR>JO99JX S9+
1942	oh5gr	1296212.0	OH5LK	TNX
1932	dk3se	1296180.0	IK3VZO	JN37UP->JN55XA-TNX
1931	dk3se	1296180.0	I4CIV	JN37UP->JN63FX-TNX
1931	dk3se	1296180.0	IV3DXW	JN37UP->JN65QQ-TNX
1930	dk3se	1296203.0	IK3GHI	JN37UP->JN65DM-TNX
1928	sk2at	1296211.0	OH6HOL	SSB 59
1924	oh5k	1296185.0	SK0EN	CQing 599 here
1919	in3zurf	1296210.0	IK3GHI	JN56XV -> JN65DM
1905	gm4xcm	1296155.0	G8PNN	IO75tr-tr IO95EF
1832	pe2tv	1296160.0	DK7GX	JO32GH<TR>JO42KH TNX QSO
1832	sk7uuv	1296210.0	IK3GHI	559 qsb
1818	pe2tv	1296170.0	OZ9ZZ	JO32GH<TR>JO46QK TNX QSO
1817	Oeme	1296180.0	I0HLK/0	jm68ma-d>jm62no 52
1816	sk7uuv	1296200.0	I0HLK/0	TNX loud
1816	pe2tv	1296195.0	PA0BAT	JO32GH<TR>JO31FX TNX QSO Gerar
1816	sk2at	1296205.0	ES5PC	via AP
1815	pe2tv	1296188.0	OZ9KY	JO32GH<TR>JO45VX TNX QSO
1814	pe2tv	1296180.0	OZ3Z	JO32GH<TR>JO45 TNX QSO
1813	pe2tv	1296190.0	DL0VV	JO32GH<TR>JO64AD trx qso
1812	dk3se	1296180.0	IK2OFO	JN37UP->JN45PB-TNX
1807	dk3se	1296210.0	IW4BLG	JN37UP->JN54GV-TNX
1806	dk3se	1296210.0	I222TR	JN37UP->JN45NL-TNX
1805	oh5gr	1296212.0	OH3LWP	TNX
1803	icde	1296250.0	I0HLK/0	JN53ag<TR>JN62no loud
1801	oh5gr	1296212.0	ES2NJ	TNX
1758	sk2at	1296210.0	OH6HOL	CQ

CALL	NAME
G1DPL	IO91NL Pete 1.
G4YHF/A	IO92UU Jools
PA3CV	JO32BF Alex
2E0VPX	IO91QV Andy 2
DC4LR	JO44NA Rodige
DC6UW	JO44VJ Norber
DF2UX	JN48EV Mike 1;
DF9IC	JN48IW Hennin
(DF9GX)	JO42HD Matthias
DJ8JJ	JO31LG HeinO
DK3SE	JN37UP Salvo 2
DK7GX	JO42KH Eckhar
DL6HOF	JO50XG Harald
DL6VV	JO64AD Club 1;
DL3AE	JN49DG Daniel
(DL5EAG)	JO31EI 1,3-24
DL5BS	JO31LH Juerge
DL6SAQ	JN58CK walter
ES10X/2	KO29HI Aleksar
ES10X	KO29AI Aleksar
(ES2AFF)	KO29EE Pyrit 23
ES2AJK	KO29HK Andy 2
ES2NX	KO29JM Ngul ;
ES3RF	KO29IF Gennadi
ES5PC	KO38HJ Viljo
ES5QA	KO38OM Valeri
ES6FX	KO37OW Karmo
EW1AA	KO33RU Sergej
EW6FS	KO35LB Anton
F58UU	JN03PO Jean C
(F6DKW)	JN18CS Maurizio
G0BRC	JO01GH Club
G0EHV	IO84XT /P Eddi
G0HGH	IO92WS Jim

ON4KST

The Microwave chat (by C x)

www.on4kst.org/chat/index.php

Apps Skimmer DXLite: Am... AD270 AD370 Manu... Mark Knopfler An... N1MM Logger Web... Super Check Partial ... Eric Clapton - Ba... Telegraph Road -... Other bookmarks

MENU Send G7SOZ 57 of 6362 registered users

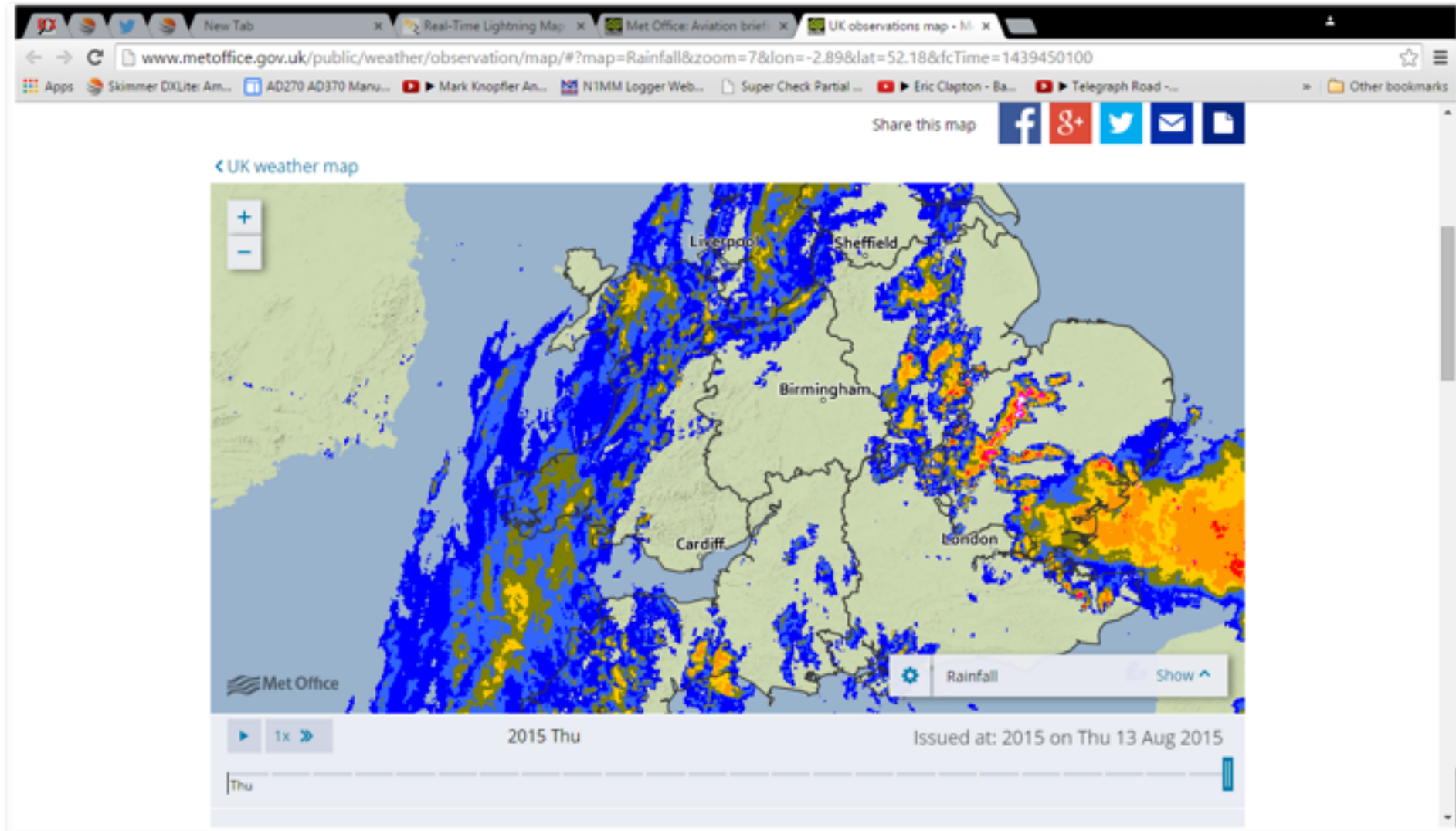
UTC	CALL/NAME	Microwave MESSAGE	Mid lat. AU	UTC SPOTTER ORG	DX	INFO
17:37:30	I4XCC Clau	warning		1728 ha1ya	10368110.0 HA5UA	eq 57s
17:37:25	LY3A Stan			1728 amTch	10368210.0 LY3VP	J006-K005 298km trx new!
17:36:18	LY2HS Val					
17:35:53	EW6FS Ant					
17:35:02	EW1AA Se					
17:34:48	LY3VIP VM					
17:34:24	I4XCC Clau					
17:34:11	OK1JKT Ka					
17:34:08	I4XCC Clau					
17:33:29	SM7LCB U					
17:33:02	EW6FS Ant					
17:32:56	HA5UA Laci					
17:32:49	EW1AA Se					
17:32:36	RN3DKQ Iv					
17:32:27	LY3A Stan					
17:32:00	HA5UA Laci					
17:31:57	LY3VIP VM					
17:31:42	LY2HS Val					
17:31:33	EW1AA Se					
17:31:32	HA2ML Istv					
17:31:11	I4XCC Clau					
17:31:05	HA1YA Gal					
17:30:37	HA5UA Laci					
17:29:59	LY3A Stan					
17:29:53	HA2ML Istv					
17:29:52	EW1AA Se					
17:29:09	HA5UA Laci	23&3cm (HA2ML) hallasz valamit Pista?				
17:28:41	LY3VIP VMURClub	(SM7LCB) trx 23&13&3 cm qso! this year cndx beter .73!				

2015-08-13 21:49:07Z G4BAO John 13/3/1.2 (G7SOZ) Oh Dear you HAVE got it bad! :-)

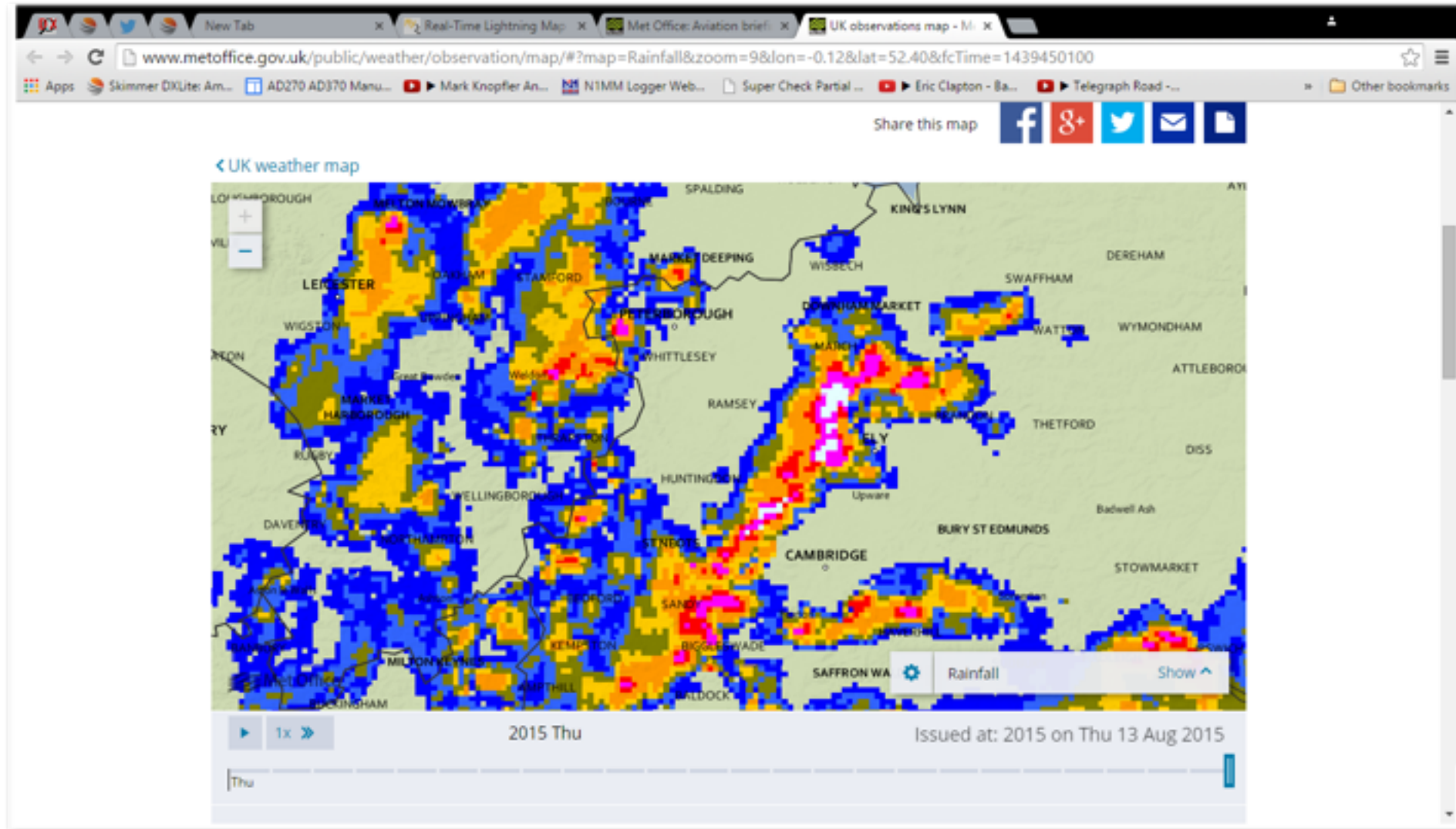
Back Close

Interesting propagation modes

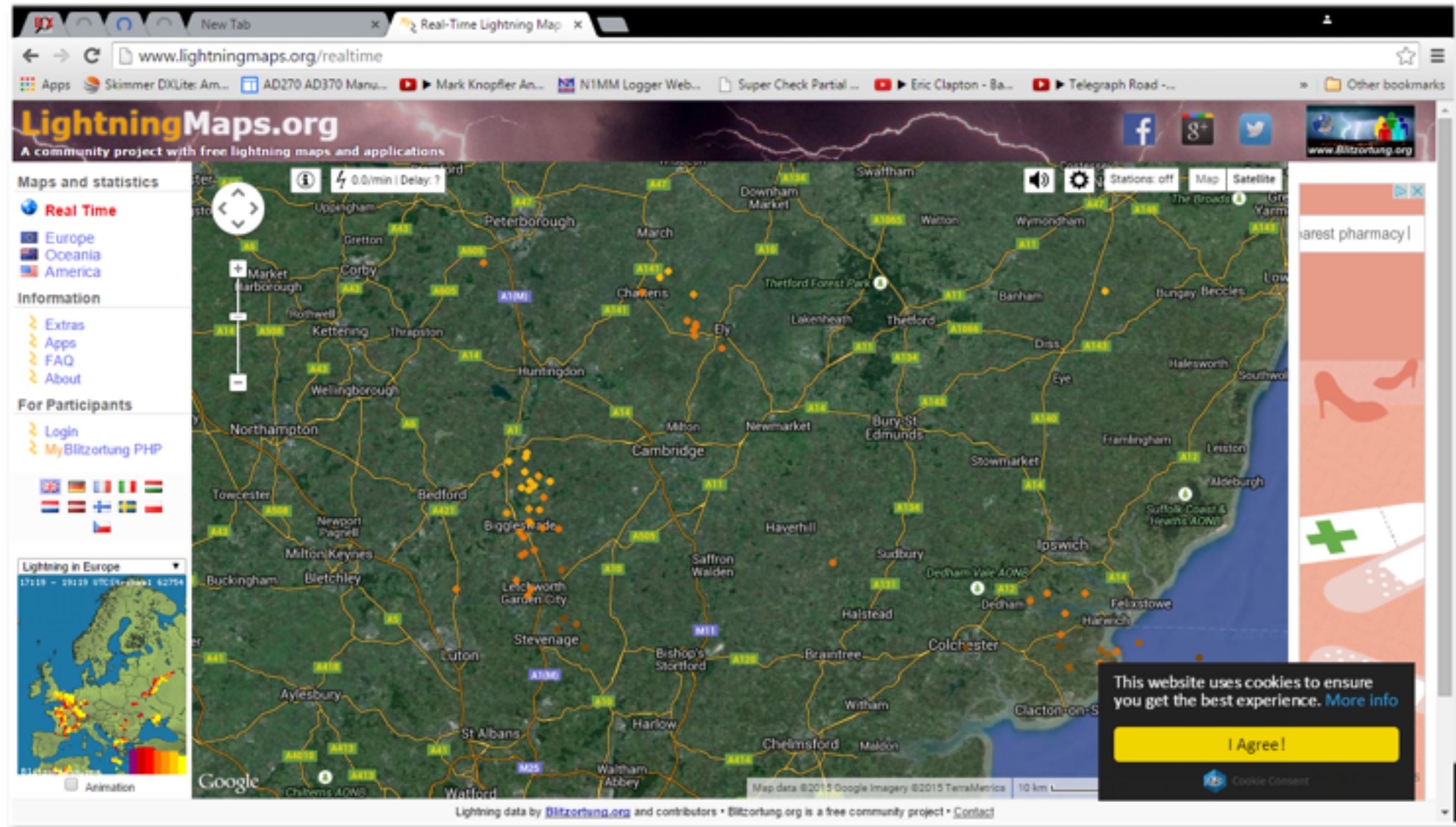
Rainscatter



Rainscatter



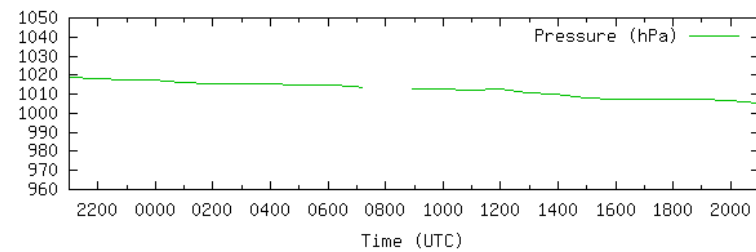
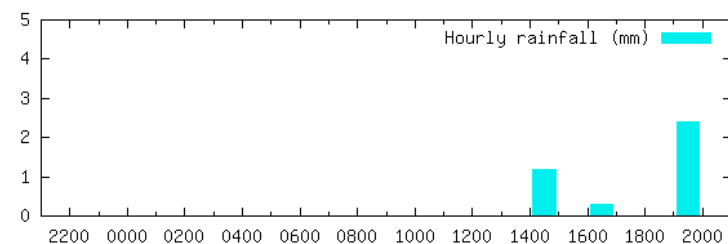
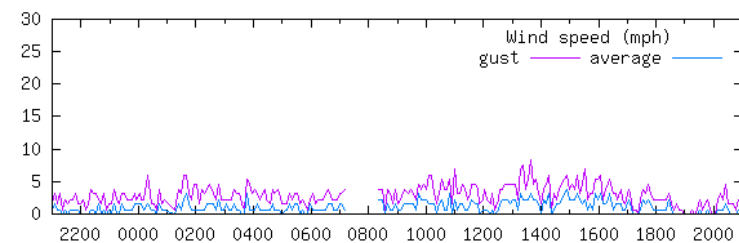
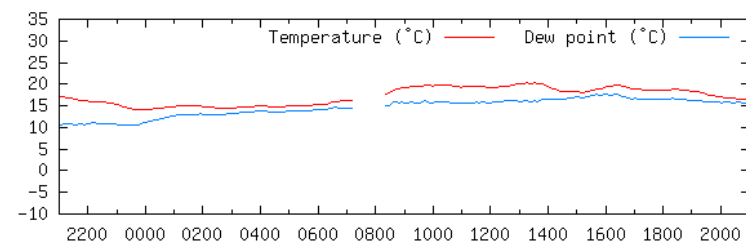
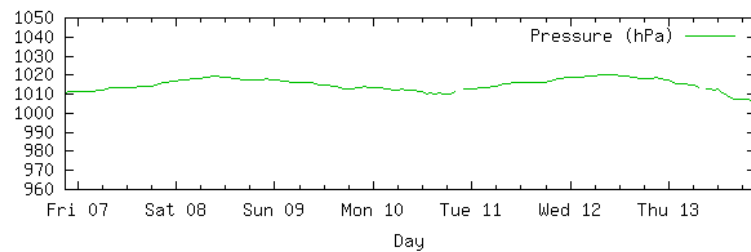
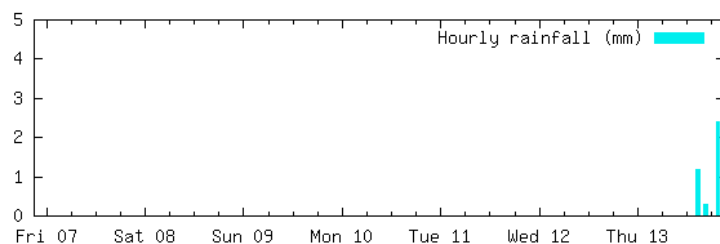
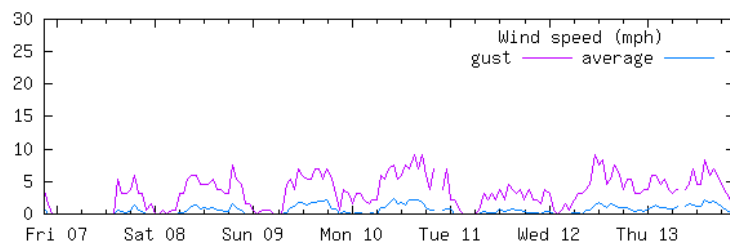
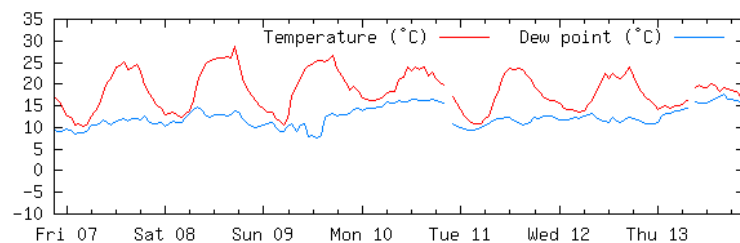
Rainscatter



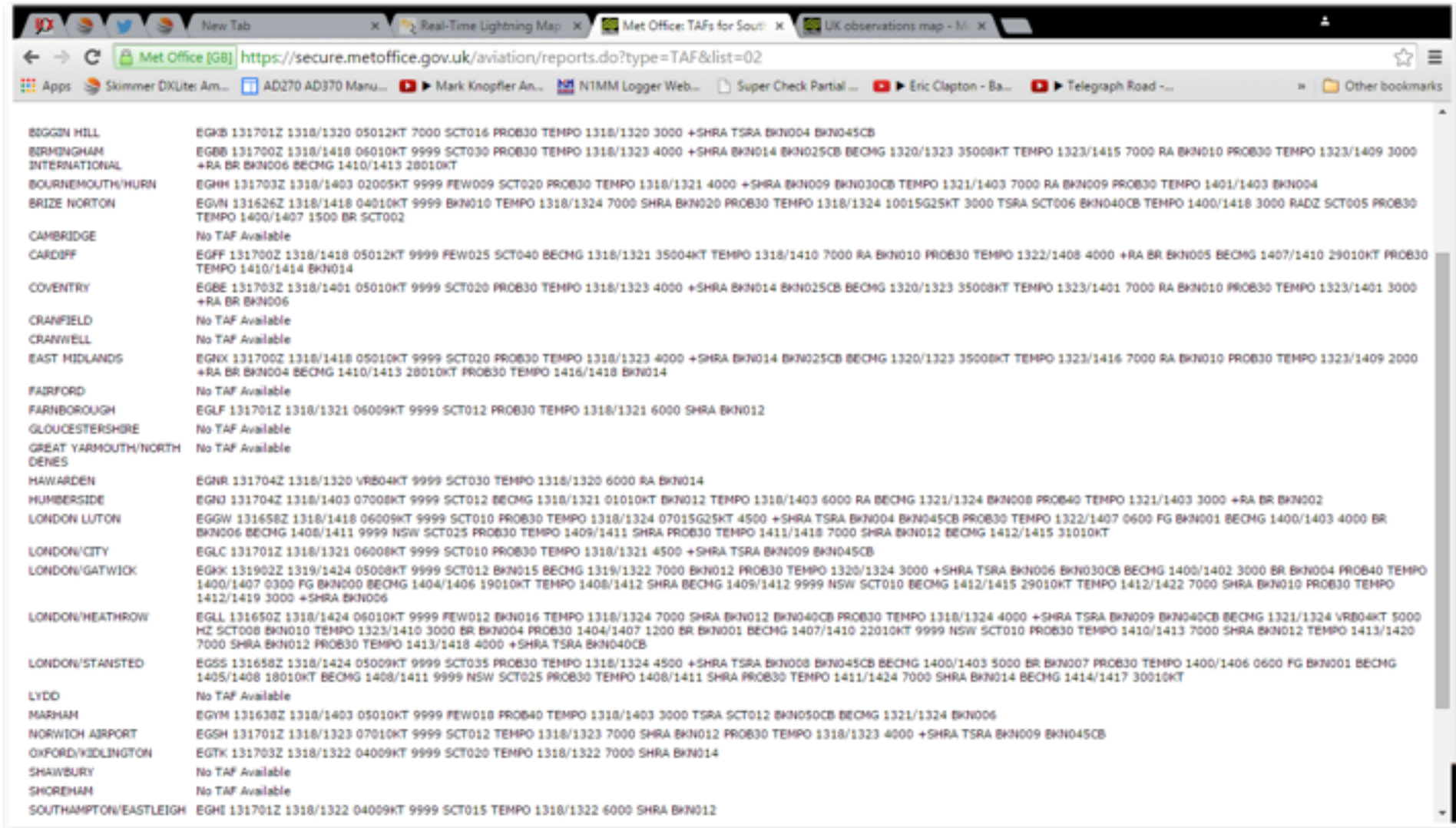
Rainscatter



Rainscatter

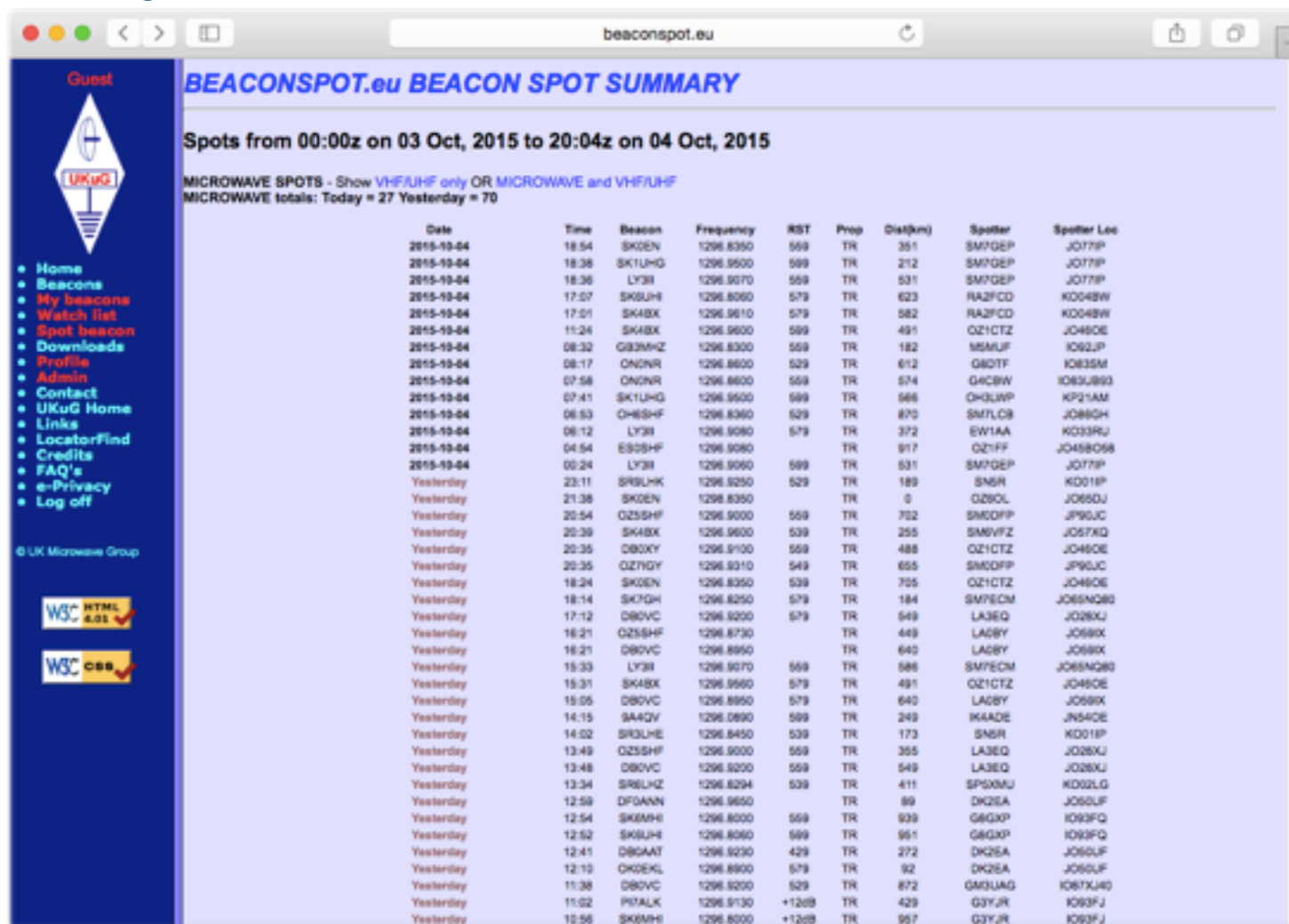


Rainscatter



BEGGIN HILL	EGKB 131701Z 1318/1320 05012KT 7000 SCT016 PROB30 TEMPO 1318/1320 3000 +SHRA TSRA BKN004 BKN045CB
BIRMINGHAM INTERNATIONAL	EGBB 131700Z 1318/1418 06010KT 9999 SCT030 PROB30 TEMPO 1318/1323 4000 +SHRA BKN014 BKN025CB BECMG 1320/1323 35008KT TEMPO 1323/1415 7000 RA BKN010 PROB30 TEMPO 1323/1409 3000 +RA BR BKN006 BECMG 1410/1413 28010KT
BOURNEMOUTH/HURN	EGHH 131703Z 1318/1403 02005KT 9999 FEW009 SCT020 PROB30 TEMPO 1318/1321 4000 +SHRA BKN009 BKN030CB TEMPO 1321/1403 7000 RA BKN009 PROB30 TEMPO 1401/1403 BKN004
BRIZE NORTON	EGVN 131626Z 1318/1418 04010KT 9999 BKN010 TEMPO 1318/1324 7000 SHRA BKN020 PROB30 TEMPO 1318/1324 10015G25KT 3000 TSRA SCT006 BKN040CB TEMPO 1400/1418 3000 RADZ SCT005 PROB30 TEMPO 1400/1407 1500 BR SCT002
CAMBRIDGE	No TAF Available
CARDIFF	EGFF 131700Z 1318/1418 05012KT 9999 FEW025 SCT040 BECMG 1318/1321 35004KT TEMPO 1318/1410 7000 RA BKN010 PROB30 TEMPO 1322/1408 4000 +RA BR BKN005 BECMG 1407/1410 29010KT PROB30 TEMPO 1410/1414 BKN014
COVENTRY	EGBE 131703Z 1318/1401 05010KT 9999 SCT020 PROB30 TEMPO 1318/1323 4000 +SHRA BKN014 BKN025CB BECMG 1320/1323 35008KT TEMPO 1323/1401 7000 RA BKN010 PROB30 TEMPO 1323/1401 3000 +RA BR BKN006
CRANFIELD	No TAF Available
CRANWELL	No TAF Available
EAST MIDLANDS	EGNX 131700Z 1318/1418 05010KT 9999 SCT020 PROB30 TEMPO 1318/1323 4000 +SHRA BKN014 BKN025CB BECMG 1320/1323 35008KT TEMPO 1323/1416 7000 RA BKN010 PROB30 TEMPO 1323/1409 2000 +RA BR BKN004 BECMG 1410/1413 28010KT PROB30 TEMPO 1416/1418 BKN014
FAIRFORD	No TAF Available
FARNBOROUGH	EGLF 131701Z 1318/1321 06009KT 9999 SCT012 PROB30 TEMPO 1318/1321 6000 SHRA BKN012
GLOUCESTERSHIRE	No TAF Available
GREAT YARMOUTH/NORTH DENES	No TAF Available
HAWARDEN	EGNR 131704Z 1318/1320 VRB04KT 9999 SCT030 TEMPO 1318/1320 6000 RA BKN014
HUMBERSIDE	EGNU 131704Z 1318/1403 07008KT 9999 SCT012 BECMG 1318/1321 01010KT BKN012 TEMPO 1318/1403 6000 RA BECMG 1321/1324 BKN008 PROB40 TEMPO 1321/1403 3000 +RA BR BKN002
LONDON LUTON	EGGW 131658Z 1318/1418 06009KT 9999 SCT010 PROB30 TEMPO 1318/1324 07015G25KT 4500 +SHRA TSRA BKN004 BKN045CB PROB30 TEMPO 1322/1407 0600 FG BKN001 BECMG 1400/1403 4000 BR BKN006 BECMG 1408/1411 9999 NSW SCT025 PROB30 TEMPO 1409/1411 SHRA PROB30 TEMPO 1411/1418 7000 SHRA BKN012 BECMG 1412/1415 31010KT
LONDON/CITY	EGLC 131701Z 1318/1321 06008KT 9999 SCT010 PROB30 TEMPO 1318/1321 4500 +SHRA TSRA BKN009 BKN045CB
LONDON/GATWICK	EGKK 131902Z 1319/1424 05008KT 9999 SCT012 BKN015 BECMG 1319/1322 7000 BKN012 PROB30 TEMPO 1320/1324 3000 +SHRA TSRA BKN006 BKN030CB BECMG 1400/1402 3000 BR BKN004 PROB40 TEMPO 1400/1407 0300 FG BKN000 BECMG 1404/1406 19010KT TEMPO 1408/1412 SHRA BECMG 1409/1412 9999 NSW SCT010 BECMG 1412/1415 29010KT TEMPO 1412/1422 7000 SHRA BKN010 PROB30 TEMPO 1412/1419 3000 +SHRA BKN006
LONDON/HEATHROW	EGLL 131650Z 1318/1424 06010KT 9999 FEW012 BKN016 TEMPO 1318/1324 7000 SHRA BKN012 BKN040CB PROB30 TEMPO 1318/1324 4000 +SHRA TSRA BKN009 BKN040CB BECMG 1321/1324 VRB04KT 5000 HZ SCT008 BKN010 TEMPO 1323/1410 3000 BR BKN004 PROB30 1404/1407 1200 BR BKN001 BECMG 1407/1410 22010KT 9999 NSW SCT010 PROB30 TEMPO 1410/1413 7000 SHRA BKN012 TEMPO 1413/1420 7000 SHRA BKN012 PROB30 TEMPO 1413/1418 4000 +SHRA TSRA BKN040CB
LONDON/STANSTED	EGSS 131658Z 1318/1424 05009KT 9999 SCT035 PROB30 TEMPO 1318/1324 4500 +SHRA TSRA BKN008 BKN045CB BECMG 1400/1403 5000 BR BKN007 PROB30 TEMPO 1400/1406 0600 FG BKN001 BECMG 1405/1408 18010KT BECMG 1408/1411 9999 NSW SCT025 PROB30 TEMPO 1408/1411 SHRA PROB30 TEMPO 1411/1424 7000 SHRA BKN014 BECMG 1414/1417 30010KT
LYDD	No TAF Available
MARHAM	EGYM 131638Z 1318/1403 05010KT 9999 FEW018 PROB40 TEMPO 1318/1403 3000 TSRA SCT012 BKN050CB BECMG 1321/1324 BKN006
NORWICH AIRPORT	EGSH 131701Z 1318/1323 07010KT 9999 SCT012 TEMPO 1318/1323 7000 SHRA BKN012 PROB30 TEMPO 1318/1323 4000 +SHRA TSRA BKN009 BKN045CB
OXFORD/KIDLINGTON	EGTK 131703Z 1318/1322 04009KT 9999 SCT020 TEMPO 1318/1322 7000 SHRA BKN014
SHAWBURY	No TAF Available
SHOREHAM	No TAF Available
SOUTHAMPTON/EASTLEIGH	EGHE 131701Z 1318/1322 04009KT 9999 SCT015 TEMPO 1318/1322 6000 SHRA BKN012

Beaconspot



Guest

BEACONSPOT.eu BEACON SPOT SUMMARY

Spots from 00:00z on 03 Oct, 2015 to 20:04z on 04 Oct, 2015

MICROWAVE SPOTS - Show VHF/UHF only OR MICROWAVE and VHF/UHF
MICROWAVE totals: Today = 27 Yesterday = 70

Date	Time	Beacon	Frequency	RST	Prop	Dist(km)	Spotter	Spotter Loc
2015-10-04	18:54	SK0EN	1298.8350	599	TR	351	SM7GEP	JO77RP
2015-10-04	18:38	SK1UHG	1298.9500	599	TR	212	SM7GEP	JO77RP
2015-10-04	18:36	LY3R	1298.9070	599	TR	531	SM7GEP	JO77RP
2015-10-04	17:57	SK0UHI	1298.8060	579	TR	623	RA2FCO	KO048W
2015-10-04	17:51	SK4BX	1298.9610	579	TR	582	RA2FCO	KO048W
2015-10-04	11:24	SK4BX	1298.9600	599	TR	491	OZ1CTZ	JO48OE
2015-10-04	08:32	G03MHZ	1298.8300	599	TR	182	M8MUF	IO62JP
2015-10-04	08:17	ON0NR	1298.8600	529	TR	612	G80TF	IO63SM
2015-10-04	07:58	ON0NR	1298.8600	599	TR	574	G4CBW	IO63J893
2015-10-04	07:41	SK1UHG	1298.9500	599	TR	566	OH3UVP	KP21AM
2015-10-04	06:53	O-HSHF	1298.8360	529	TR	870	SM7LCB	JO66GH
2015-10-04	06:12	LY3R	1298.9080	579	TR	372	EW1AA	KO33RU
2015-10-04	04:54	ES0SHF	1298.9080		TR	917	OZ1FF	JO48O58
2015-10-04	00:24	LY3R	1298.9060	599	TR	531	SM7GEP	JO77RP
Yesterday	23:11	SR0LHK	1298.9250	529	TR	189	SN6R	KO018P
Yesterday	21:38	SK0EN	1298.8350		TR	0	OZ8CL	JO65DJ
Yesterday	20:54	OZ5SHF	1298.9000	599	TR	752	SM0DFP	JP95JC
Yesterday	20:39	SK4BX	1298.9600	539	TR	255	SM0VPZ	JO57KQ
Yesterday	20:35	O80XY	1298.9100	599	TR	488	OZ1CTZ	JO48OE
Yesterday	20:35	OZ1NGY	1298.9310	549	TR	655	SM0DFP	JP95JC
Yesterday	18:24	SK0EN	1298.8350	539	TR	755	OZ1CTZ	JO48OE
Yesterday	18:14	SK7GH	1298.8250	579	TR	184	SM7ECM	JO65NQ80
Yesterday	17:12	O80VC	1298.9200	579	TR	549	LA3EQ	JO28KJ
Yesterday	16:21	OZ5SHF	1298.8730		TR	449	LA6BY	JO68X
Yesterday	16:21	O80VC	1298.8950		TR	640	LA6BY	JO68X
Yesterday	15:33	LY3R	1298.9070	599	TR	586	SM7ECM	JO65NQ80
Yesterday	15:31	SK4BX	1298.9560	579	TR	491	OZ1CTZ	JO48OE
Yesterday	15:05	O80VC	1298.8950	579	TR	640	LA6BY	JO68X
Yesterday	14:15	9A4QV	1298.0890	599	TR	249	KA4DE	JN54CE
Yesterday	14:02	SR0LHE	1298.8450	539	TR	173	SN6R	KO018P
Yesterday	13:49	OZ5SHF	1298.9000	599	TR	355	LA3EQ	JO28KJ
Yesterday	13:48	O80VC	1298.9200	599	TR	549	LA3EQ	JO28KJ
Yesterday	13:34	SR0LHZ	1298.8294	539	TR	411	SP5XJU	KO02LG
Yesterday	12:59	DF0ANN	1298.9650		TR	89	DK2EA	JO60UF
Yesterday	12:54	SK0MHI	1298.8000	599	TR	939	G8QXP	IO63FQ
Yesterday	12:52	SK0UHI	1298.8060	599	TR	951	G8QXP	IO63FQ
Yesterday	12:41	O80MAT	1298.9230	429	TR	272	DK2EA	JO60UF
Yesterday	12:10	OK0EKL	1298.8900	579	TR	92	DK2EA	JO60UF
Yesterday	11:38	O80VC	1298.9200	529	TR	872	GM3UAG	IO67XJ40
Yesterday	11:02	P17ALK	1298.9130	+120B	TR	429	G3YJR	IO63FJ
Yesterday	10:56	SK0MHI	1298.8000	+120B	TR	957	G3YJR	IO63FJ

Future plans

Join UK Microwave group

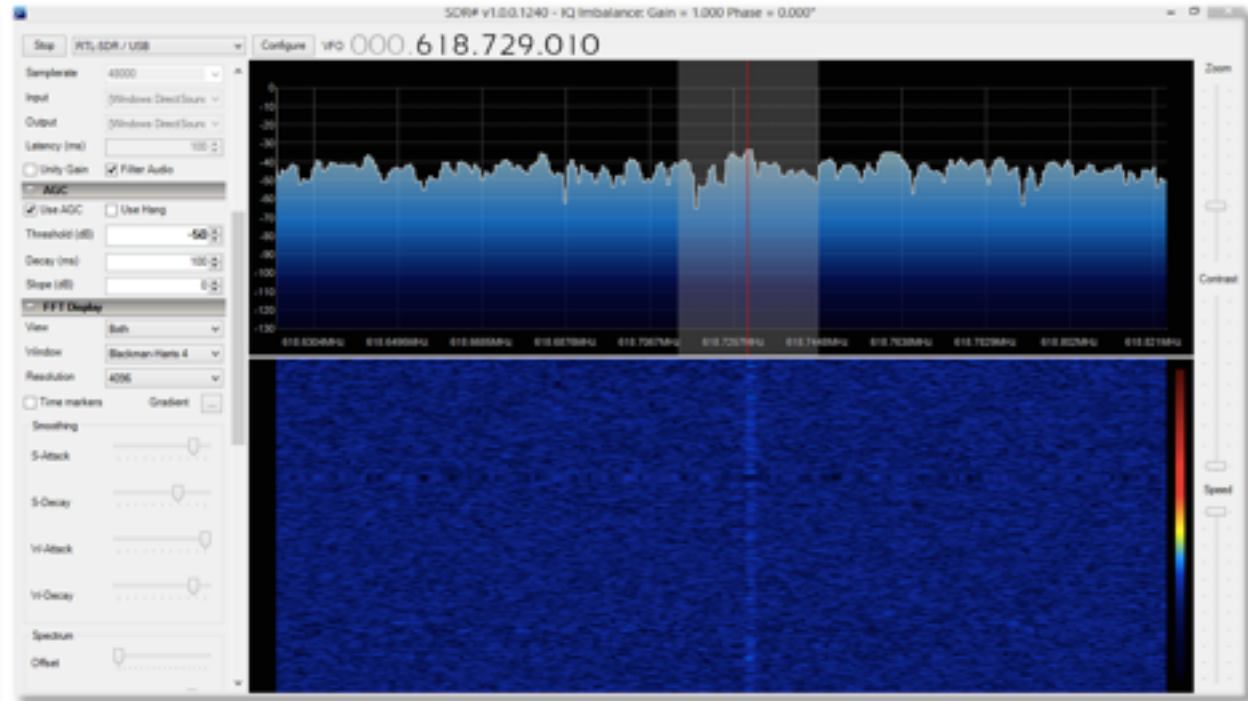
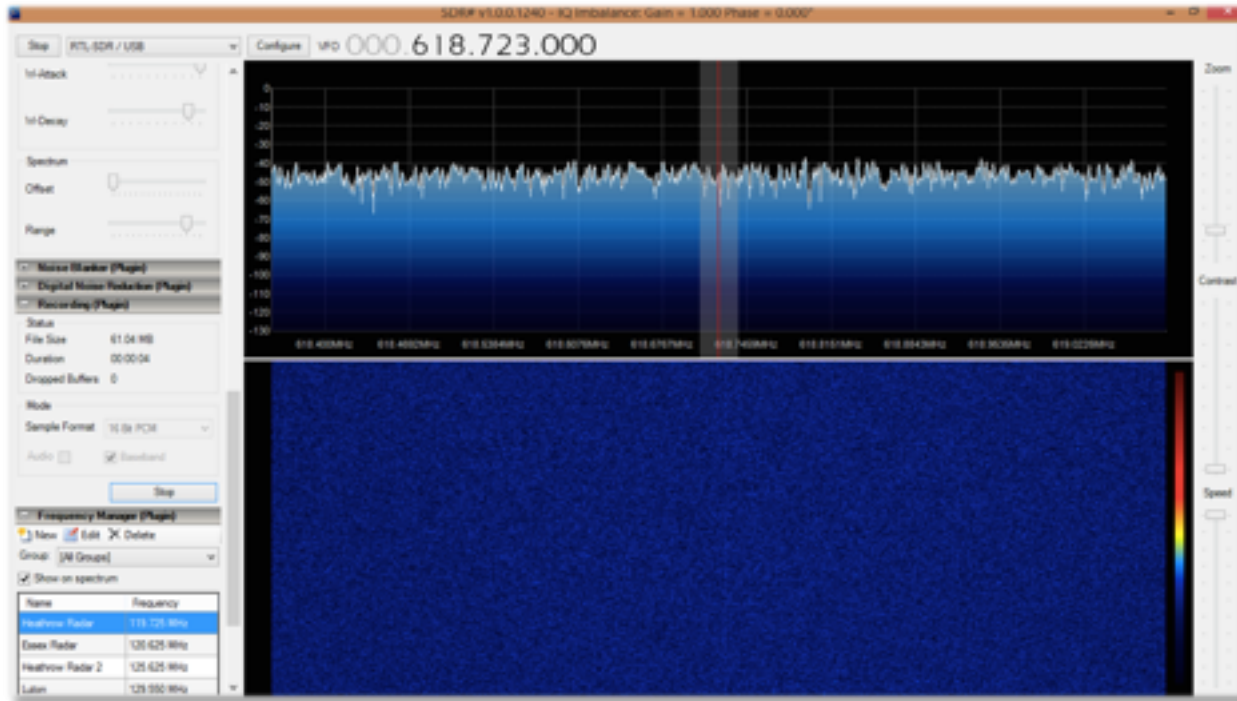


Future plans – 10GHz



www.khune-electronic.de

Future plans – 10GHz rainscatter



Future plans – 23cms

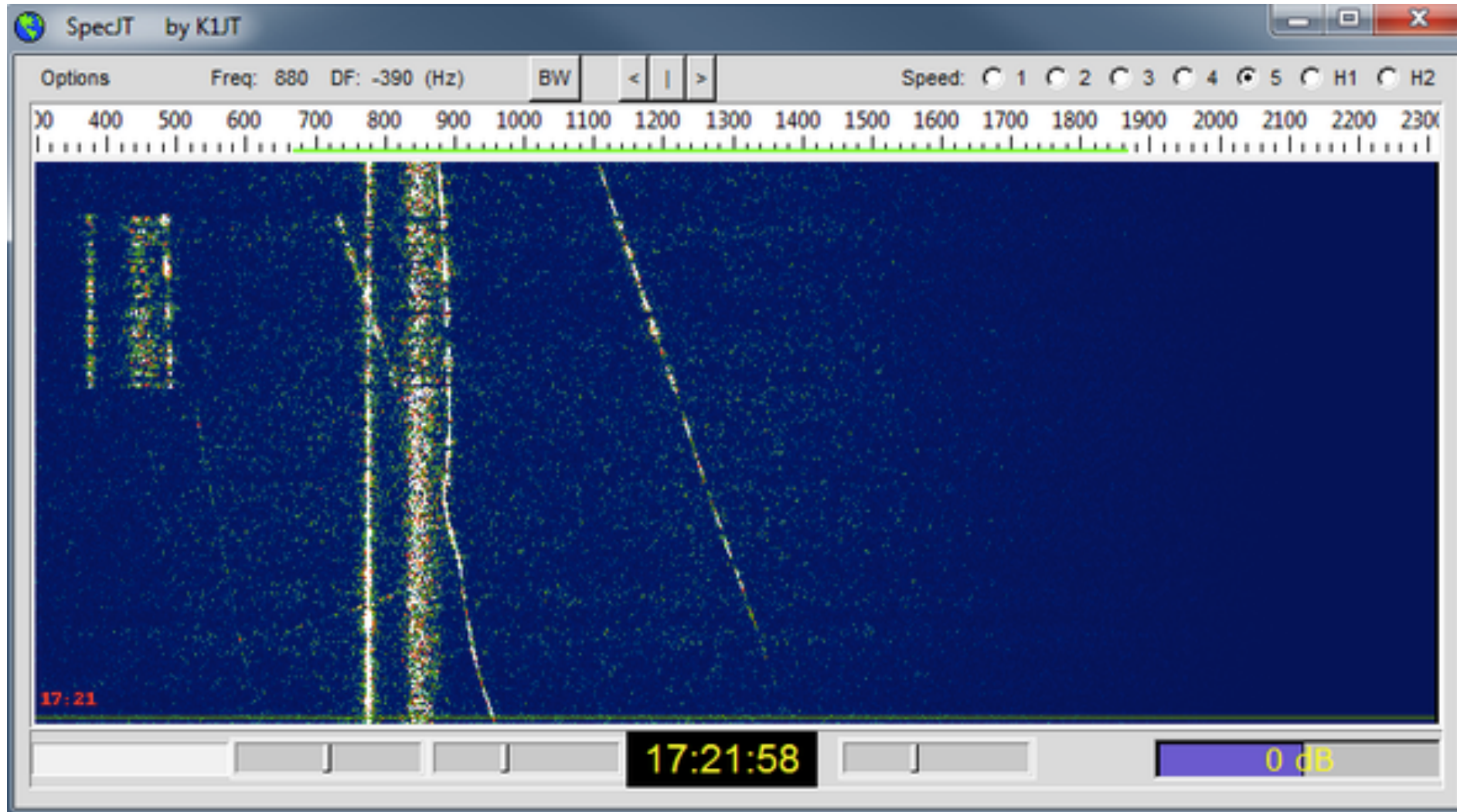


Sort out an antenna!

Anglian transverter for K3

Have a go at UK Activity
Contests

Future plans – 23cms



Aircraft scatter

Future plans – 23cms EME



I fancy a challenge!

Give it a go!

Band	Item	Cost	Total
3cms	RTL dongle	£7	£35.50
	LNB	£15	
	Bias tee	£10	
	10m of terminated satellite coax (because I'm a lazy G7)	£3	
	Old Sky dish	Scrounged	
	Dish bracket	50p	
	Tripod	On loan	
23cms	Transverter	£120	£120
	Antenna and coax	On loan	
			£155.50

Thanks

