



An Amateur Radio publication for the Microwave Enthusiast

scatterpoint

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Published by the UK Microwave Group

EME Activity at PB8

Guy Gervais F2CT



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Subscription Information

The following subscription rates apply.

UK £6.00 US \$12.00 Europe €10.00

This basic sum is for **UKuG membership**. For this you receive Scatterpoint for **FREE** by electronic means (now internet only) via the [Yahoo group](#) and/or Dropbox.

Please make sure that you pay the stated amounts when you renew your subs next time. If the amount is not correct your subs will be allocated on a pro-rata basis and you could miss out on a newsletter or two!

You will have to make a quick check with the membership secretary if you have forgotten the renewal date. Please try to renew in good time so that continuity of newsletter issues is maintained. Put a **renewal date reminder** somewhere prominent in your shack.

Please also note the payment methods and be meticulous with PayPal and cheque details.

PLEASE QUOTE YOUR CALLSIGN!

Payment can be made by: PayPal to

ukug@microwavers.org

or a cheque (drawn on a UK bank) payable to 'UK Microwave Group' and sent to the membership secretary (or, as a last resort, by cash sent to the Treasurer!)

Articles for Scatterpoint

News, views and articles for this newsletter are always welcome.

Please send them to

editor@microwavers.org

**The CLOSING date is
the FIRST day of the month**

if you want your material to be published in the next issue.

Please submit your articles in any of the following formats:-

Text: txt, rtf, rtf, doc, docx, odt,

Pages

Spreadsheets: Excel, OpenOffice, Numbers

Images: tiff, png, jpg

Schematics: sch (Eagle preferred)

I can extract text and pictures from pdf files but tables can be a bit of a problem so please send these as separate files in one of the above formats.

Thank you for your co-operation.

Martin G8BHC

Reproducing articles from Scatterpoint

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You may not reproduce articles for profit or other commercial purpose.

You may not publish Scatterpoint on a website or other document server.

UKμG Chip Bank – A free service for members

The catalogue is now on the UKμG web site at www.microwavers.org/?chipbank.htm *Latest Stock Update was May 2015 – so do take a look!*

Non members can join the UKμG by following the non-members link on the same page and members will be able to email Mike with requests for components. All will be subject to availability, and a listing of a component on the site will not be a guarantee of availability of that component. The service is run as a free benefit to all members and the UK Microwave Group will pick up the cost of packaging and postage.

Minimum quantity of small components supplied is 10. Some people have ordered a single smd resistor!

The service may be withdrawn at the discretion of the committee if abuse such as reselling of components is suspected.

There is an order form on the website with an address label which will slightly reduce what I have to do in dealing with orders so please could you use it. Also, as many of the components are from unknown sources, if you have the facility to check the value, particularly unmarked items such as capacitors, do so, and let me know if any items have been miss-labelled. G4HUP's [Inductance/capacitance meter](#) with SM probes is ideal for this (Unsolicited testimonial!!)

Don't forget it is completely free, you don't even have to pay postage!

Mike G3LYP

UKμG Project support

The UK Microwave Group is pleased to encourage and support microwave projects such as Beacons, Synthesiser development, etc. Collectively UKμG has a considerable pool of knowledge and experience available, and now we can financially support worthy projects to a modest degree.

Note that this is essentially a small scale grant scheme, based on 'cash-on-results'. We are unable to provide ongoing financial support for running costs - it is important that such issues are understood at the early stages along with site clearances/licensing etc.

The application form has a number of guidance tips on it - or just ask us if in doubt!. In summary:-

- **Please apply in advance of your project**
- **We effectively reimburse costs - cash on results (eg Beacon on air)**
- **We regret we are unable to support/running costs**

Application forms below should be submitted to the UKμG Secretary, after which they are reviewed/agreed by the committee: <http://www.microwavers.org/proj-support.htm>

UKμG Technical support

One of the great things about our hobby is the idea that we give our time freely to help and encourage others, and within the UKμG there are a number of people who are prepared to (within sensible limits!) share their knowledge and, more importantly, test equipment. Our friends in America refer to such amateurs as "Elmers" but that term tends to remind me too much of that rather bumbling nemesis of Bugs Bunny, Elmer Fudd, so let's call them Tech Support volunteers.

While this is described as a "service to members" it is not a "right of membership!"

Please understand that you, as a user of this service, must expect to fit in with the timetable and lives of the volunteers. Without a doubt, the best way to make

people withdraw the service is to hassle them and complain if they cannot fit in with YOUR timetable!

Please remember that a service like our support people can provide would cost lots of money per hour professionally and it's costing you nothing and will probably include tea and biscuits!

If anyone would like to step forward and volunteer, especially in the regions where we have no representative, please email john@g4bao.com

The current list is available at www.microwavers.org/tech-support.htm

Beacon OK0EB goes Microwave

By Jan, OK1VAO on behalf of Petr OK2ULQ

We would like with pleasure announce that beacon OK0EB at Klet', 1084m asl, JN78DU was extended by MW bands on June 1st. New frequencies and powers are:

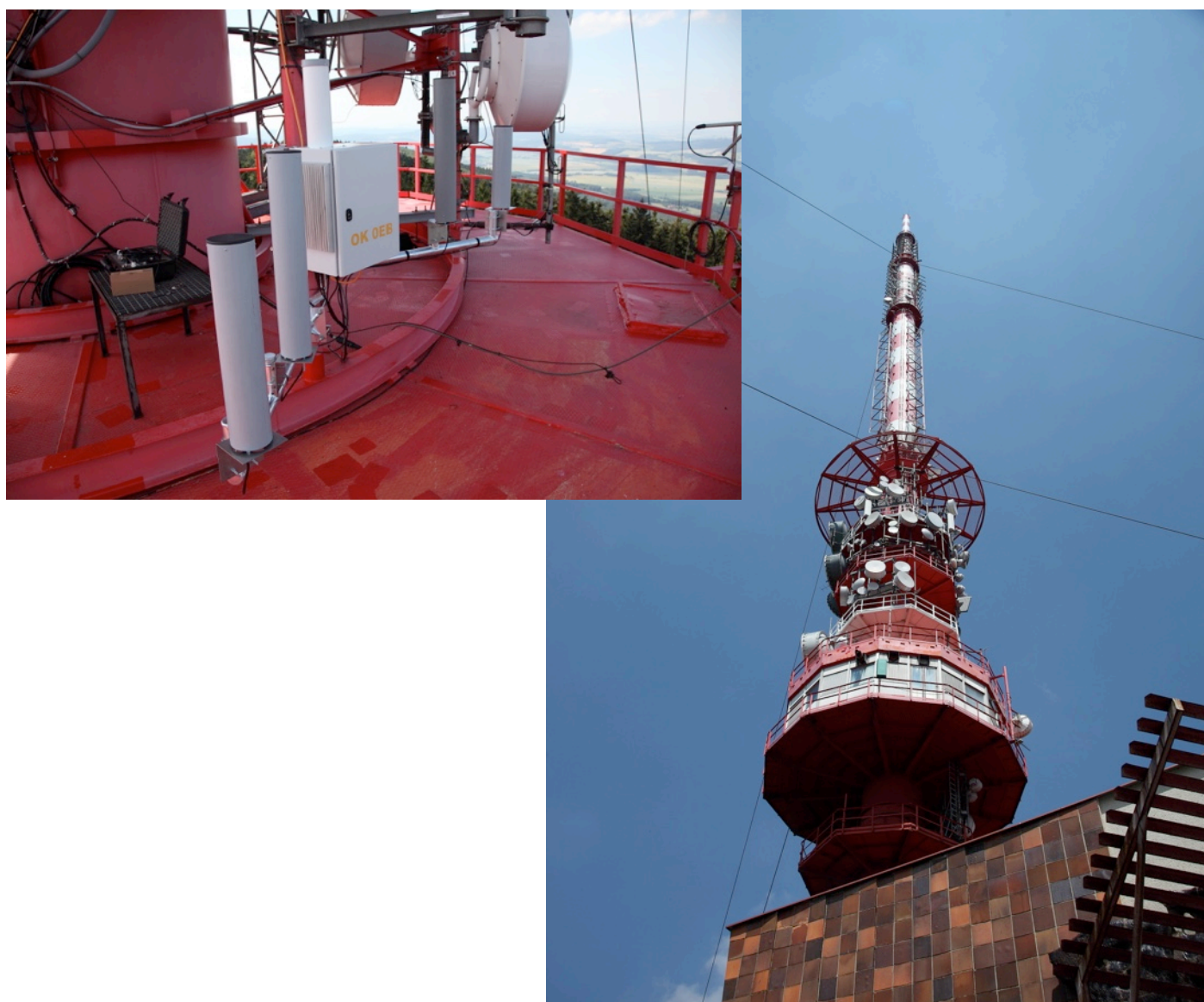
1296.970 MHz	10W
2320.970 MHz	10W
3400.970 MHz	10W
5760.970 MHz	5W
10368.970 MHz	2W

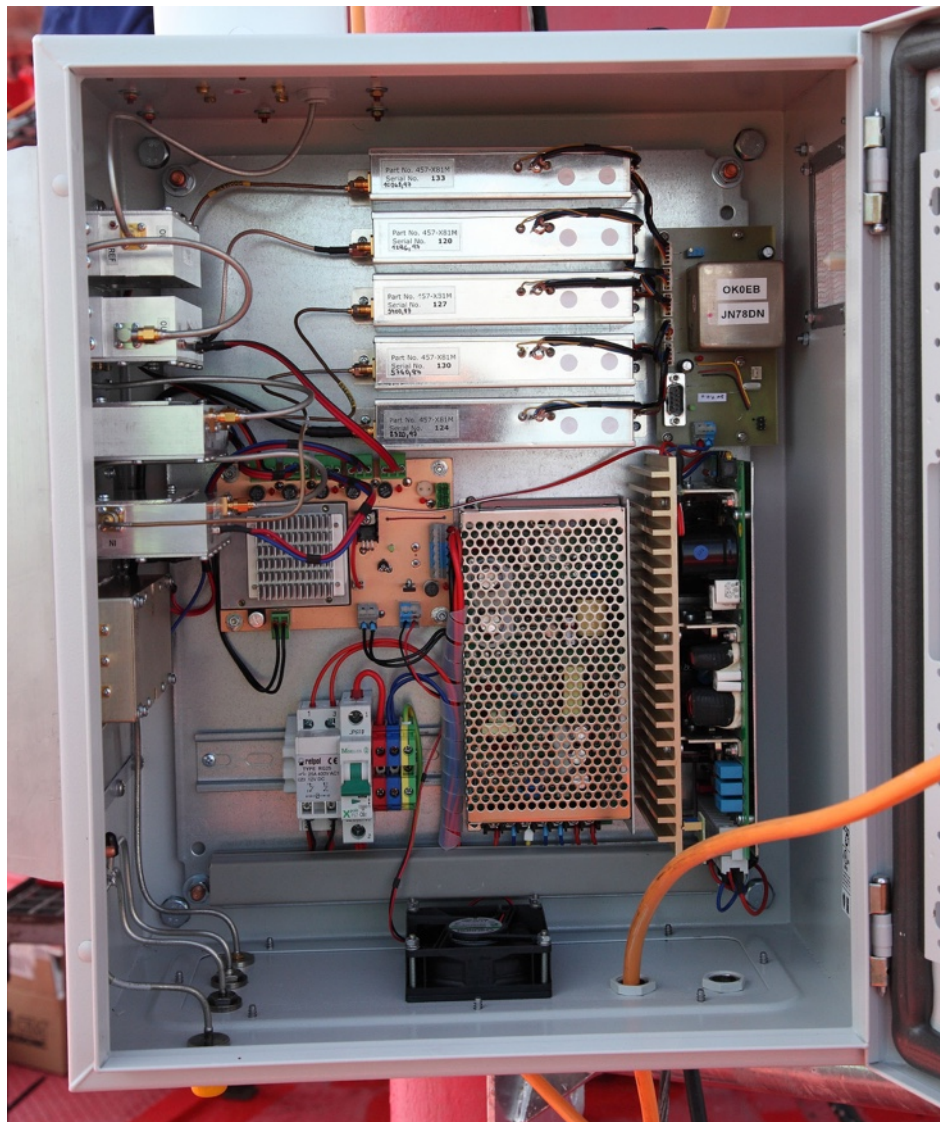
Omnidirectional antennas are installed on the mast with moderate advantage to north-east direction. Please spread this information among VHF/UHF enthusiasts in your societies.

We wish you all the best in the third sub regional contest.

Please signal reports to Petr OK2ULG to his e-mail ok2ulq at seznam.cz

73 Jan, OK1VAO on behalf of Petr OK2ULQ





EME 10 GHz Activity Report

REF-DUBUS Contest 2015 May 16-17

Guy Gervais F2CT TM8PB op

ORPB POLE PHOENIX PARC DU RADOME

22560 PLEUMEUR-BODOU



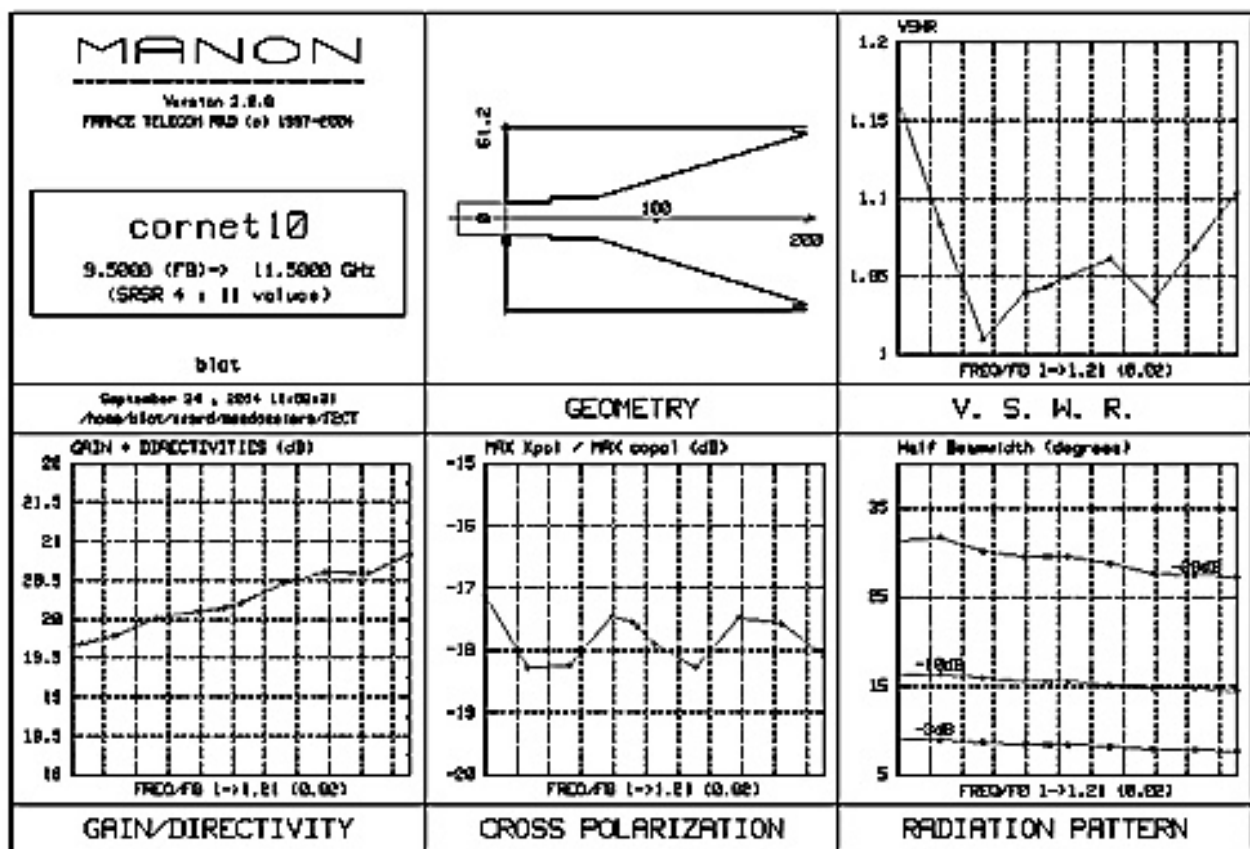
Abstract

In May 2014 , first tests on 10GHz EME were made with Cassegrain 13m PB8 dish with a non optimized linear feed . During 2014 REF-Dubus EME some qsos via the Moon were achieved but the echoes level was around 6dB/noise . After some investigations we found that the feedhorn was not optimized and note at the focal point.

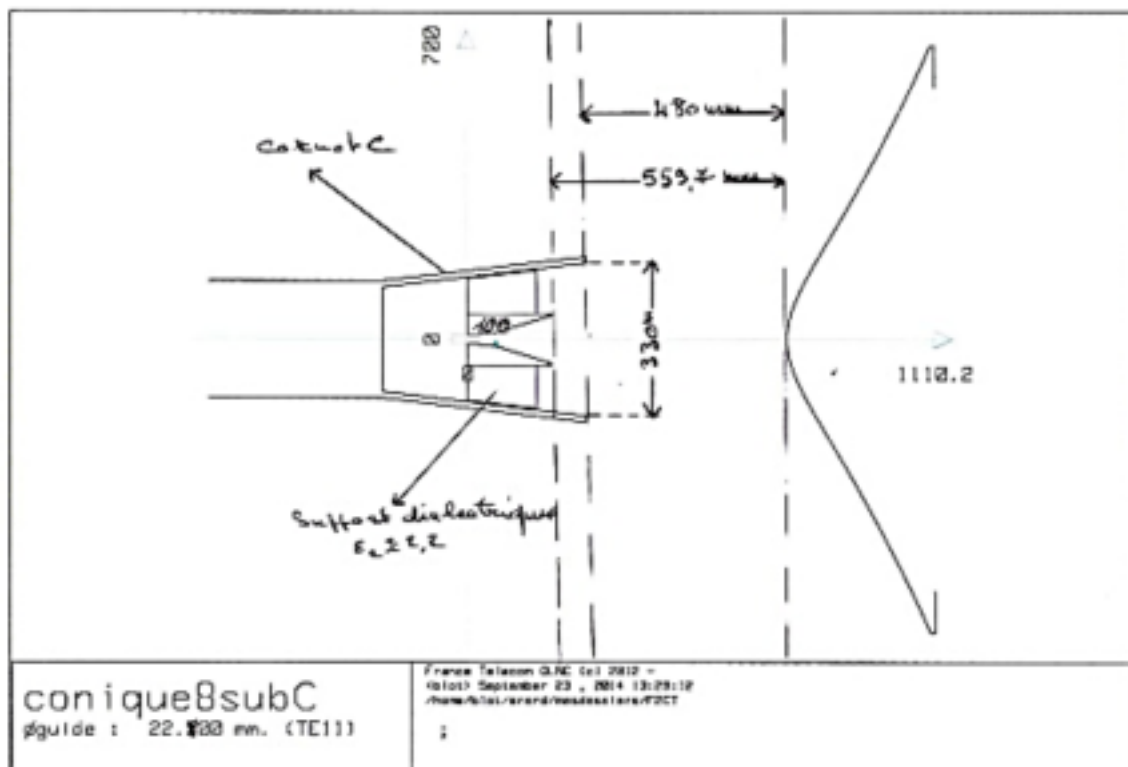
So we decide to design a new feed with the help from Jean Pierre Blot , antennas engineer , OM6AA Rata and Bert PE1RKI.

The new simulations and design draft from Jean-Pierre Blot were sent to Bert PE1RKI and to Rata OM6AA.





10GHz Septum feed 10GHz Simulation



Sub-reflector position



Septum feed assembly

10 GHz setup

Receiving:

10,6 GHz LNA with 0,6 dB NF and 26 dB gain on RHCP
(Right Hand Circular Polarization)



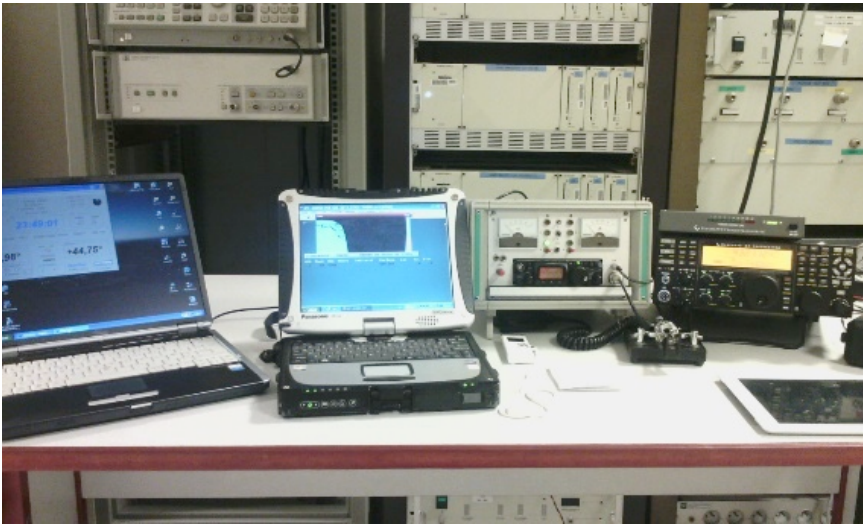
10,450/10,368GHz switchable converter for JAs

Transmitting:

50 W SSPA on LHCP (Left Hand Circular Polarization)



Home brew transverter 432MHz/10GHz



The Shack: PB8 with 10GHz set up



Results

- Sun noise test on Friday May 15th at 15h15 utc : 24,7dB (SF 129)
- Saturday May 16th 05h00 utc:
- Moon noise : 5,5 dB 1kHz BW
- Echoes : 23,5dB / 1kHz BW
- TM8PB send first CQ on CW sur 10368,088MHz ;
- We stopped at 0930 utc and came back at 1300 utc till 1500 utc after a big failure on the AZ tracking system (PB8 aperture : +/- 0,137° @ 3dB)

Sunday May 17th 05h45 utc:

- JA window : JA4BLC ; JA6CZD ; JA1WQF ;
- Unfortunately we missed VK3NX
- We stopped between 10h30 and 13h00 utc and put down the feed and setup at 1600 utc just before the rain and wind !
- 41 stations identified:
- 34 Stations heard/worked in CW :
- Germany : DF1OI ; DL7YC ; DL0EF ;
- England: G4NNS
- Canada : VE4MA ; VE6TA ;
- Denmark : OZ1LPR ; OZ1FF ;
- Spain: EA3HMJ (JT)
- Estonia : ES5PC
- US : K2UYH ; WA3LBI ; WA6PY
- France: F1PYR ; F6KEH ;
- Holland : PA0BAT ; PA3DZL ; PA7JB ;
- Italy : IZ2DJP ; IW2FZR ;
- Japan : JA1WQF ; JA4BLC ; JA6CZD ;
- Luxembourg : LX1DB

- Norway : OH2AXH ; OH2DG ;
- Romania : YO2BCT ; YO3DDZ ;
- Russia : UA3PTW ; UA4HTS ;
- Poland: SP6JLW
- Sweden : SM6CKU ;
- Switzerland : HB9SV ; HB9BHU ;
- Czech Rep : OK1CA ; OK1KIR ; OK2AQ ;

Stations worked in SSB :

- DL0EF ; F1PYR ; LX1DB ; OZ1LPR ;

Louder stations :

- DL0EF ; OH2AXH ; SP6JLW ; OZ1LPR ; DL7YC ; LX1DB ; OK1CA ; OK1KIR;PA0BAT; UA4HTS ;

Projects

We plan to test soon PB8 on 24GHz but we must still work on the automatic tracking system because we need an accuracy better than 0,05°.

On June 13/14 TM8PB team will participate at the 5,7 GHz Dubus contest.[report follows]

Many thanks to all ORPB society members for their outstanding help

- Lucien Macé F3ME PB8 tracking system and PB8 assembly
- André Gilloire PB8 assembly
- Sylvain Meyer F6DBI PB8 assembly
- Jean-Pierre Blot 10GHz feedhorn design
- Olivier Boeffardtracking system

2015-05-29 Guy F2CT

TM8PB op



EME 5,7 GHz Activity Report

REF-DUBUS Contest 2015 June 13-14

Guy Gervais F2CT opérateur TM8PB

ORPB POLE PHOENIX PARC DU RADOME

22560 PLEUMEUR-BODOU TM8PB

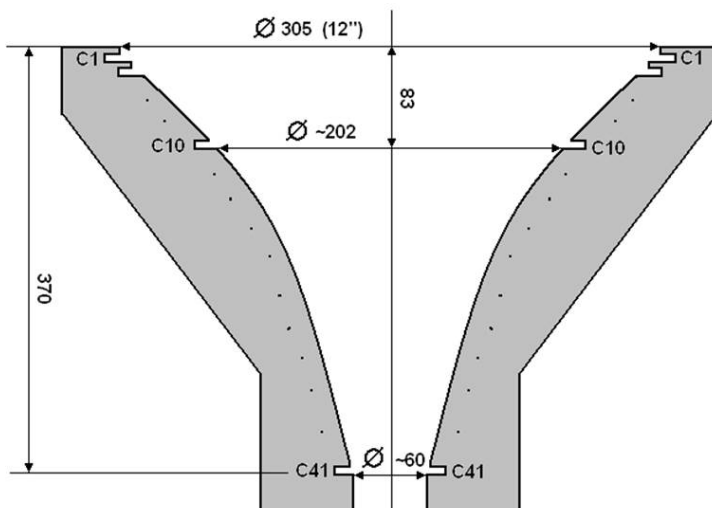
Abstract :

After the nice results on 10GHz during Dubus EME on May 16-17 ORPB team decided to participate during the next party on 5,7 GHz with Lucien F3ME , ORPB Co-Chairman , Pierre-François F5BQP , Patrick F1EBK members of the PB3 and PB5 restore project and Guy F2CT .

5,7 GHz Feed system :

The original C band feed is used without any modification .

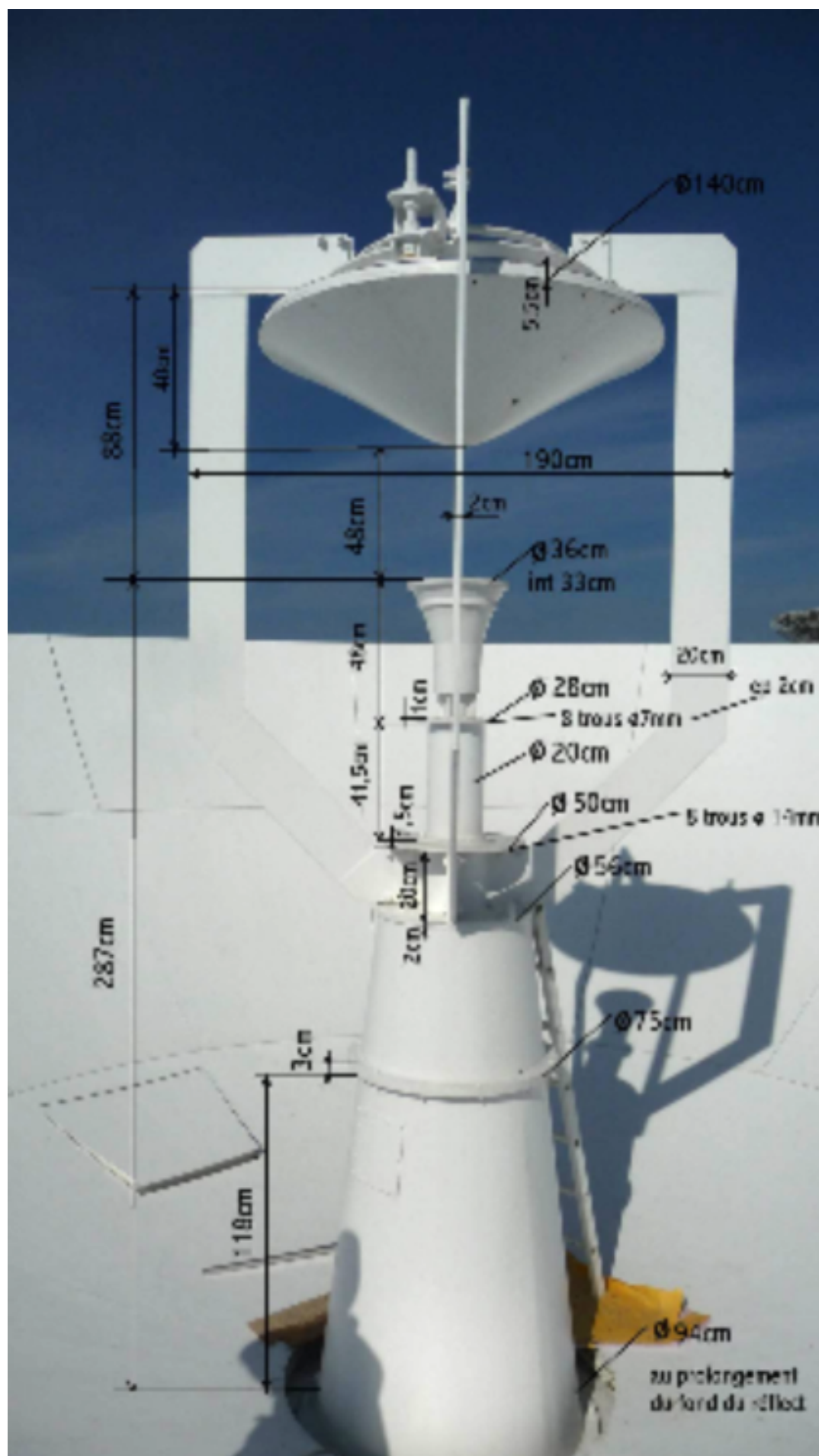
RL is around 22dB and losses around 0,8dB .



C1 ... C41: corrugations
dimensions approximatives

PB8 - coupe du cornet bande C d'origine
Cotes en mm - valeurs approximatives
Relevé LM - AG 18/05/2014





5,7 GHz setup:

Reception

- 5,7 GHz LNA NF : 0,6 dB ; G 22dB on RHCP

Transmission

- 70 W at feed with GaAsFet TIM 5359-80SL on LHCP
- The 5,7GHz setup is connected to the WR137 rotary joints just under the PB8 dish
- In the plenum with WR137 to N adaptors.



F2CT F3ME F5BQP



F5BQP F2CT



F1EBK

F5BQP

In the plenum just under the PB8 dish
On the left the 5,7GHz TVT connected to the
WR137 rotary joints with WR137 to N adaptors

Results :

Sun noise : 24,6dB/1kHz BP on june 12 SF = 137
Moon noise: 4,8 dB/1kHz BP
Giso = 56dB ;

LOG: 2015 Saturday June 13

1	04:24:14	OH2DG	559	569	
2	04:32:53	JA6CZD	559	589	
3	04:38:10	OK1KIR	559	569	JO70DH
4	04:43:09	ES5PC	559	589	
5	04:50:32	F1PYR	559	579	JN19DA
6	04:57:08	G3LTF	559	579	IO91
7	05:05:16	SQ6OPG	559	589	JO80IK
8	05:10:21	DL7YC	579	589	JO62PK
9	05:15:00	OK1CA	579	589	
10	05:19:56	JA4BLC	569	589	
11	05:29:08	UA3PTW	559	589	
12	06:01:16	SV3AAF	559	579	
13	06:12:31	PA3DZL	559	579	
14	06:21:49	F6DWG	519	559	
15	07:19:34	F5HRY	559	559	
16	07:27:22	S59DCD	559	569	
17	07:34:16	S57NML	559	579	
18	08:25:48	SM6FHZ	579	579	
19	08:59:22	SQ6OPG	55	57	JO80IK
20	09:06:41	OK1KIR	55	55	JO70DH
21	09:11:53	G3LTF	55	55	IO91
22	09:31:14	G4NNS	569	579	IO91
23	09:43:02	LX1DB	58	58	JN39CO
24	12:39:42	VE6TA	559	589	
25	12:44:08	W5LUA	579	589	
26	12:49:03	VE4MA	569	579	
27	13:03:45	K2UYH	569	589	
28	13:17:17	WA6PY	559	589	
29	13:33:57	IK3COJ	559	559	
30	13:39:15	SM6PGP	569	589	
31	14:51:20	PA3DZL	55	55	JO21

2015 Sunday June 14 :

32	05:18:13	JA1WQF	559	589	
33	05:50:35	UR5LX	519	519	KO70WK
34	06:24:36	ON5RR	559	559	
35	06:37:52	JA4BLC	569	589	
36	06:53:54	UA4AAV	559	569	
37	07:45:46	SM4DHN	569	569	
38	07:50:27	IZ2DJP	559	579	
39	08:54:57	S59DCD	55	33	
40	09:16:48	DL7YC	57	58	JO62PK
41	09:22:12	F5HRY	52	55	JN18EQ
42	12:23:49	W5LUA	57	57	EM13
43	13:09:31	SP6GWN	559	559	

Overall:

- 36 CW random qsos on TX qrg 5760,108 MHz
- 7 SSB qsos

• Germany	DL7YC	• Belgium	ON5RR
• England	G3LTF ; G4NNS	• Finland	OH2DG
• Canada	VE4MA ; VE6TA	• Russia	UA3PTW ; UA4AAV
• Estonia	ES5PC	• Ukraine	UR5LX
• USA	K2UYH ; W5LUA ; WA6PY	• Poland	SP6GWN ; SQ6OPG
• France	F1PYR ; F5HRY ; F6DWG	• Greece	SV3AAF
• Netherland	PA3DZL	• Slovénia	S57NML ; S59DCD
• Italy	IZ2DJP ; IK3COJ	• Sweden	SM4DHN ; SM6FHZ ; SM6PGP
• Japan	JA1WQF ; JA4BLC ; JA6CZD	• Tchèque	OK1CA ; OK1KIR ;
• Luxembourg	LX1DB		

SSB QSOs:

DL7YC ; F1PYR ; F5HRY ; LX1DB ; OK1KIR ; S59DCD ; W5LUA ;

8 EME stations were missing in comparison with 2014 event

Special thanks to

- Lucien Macé F3ME ; ORPB co-chair
- Pierre-François F5BQP : tracking system
- Patrick F1EBK : tracking system

30/06/2015 Guy F2CT

Opérateur TM8PB

Sales and Wants

For Sale

Peter Blair G3LTF QTHR

6ft 0.3f/D solid aluminium dish in a sturdy frame. OK for 9cm and probably 6cm as well. Will need a trailer to transport. I'm including a septum feed which will get you started on 9cm EME. £40

Wanted

Gus Coleman G3ZEZ

G3WDG-001 2.5 to 10GHz times 4 multiplier board or similar please.

Contact Gus G3ZEZ on 01255 425965 or gus@kestrel84.freemove.co.uk

This month I 'ave mostly been building...

A column (idea borrowed from the [SBMS Newsletter](#) and with a hat tip to Mark Williams' character [Jesse](#) of the Fast Show) designed for those of you who don't want to write a full technical article – but also those of you who do but only have a snippet to contribute such as a new project or a progress report.

Sam, G4DDK

This last month has been mainly working on the EME system.

I have now copied the DL0SHF 3cm JT4G beacon and G3WDG on JT4F.

With the 6cm EME system back on the dish I have also been making sun/cold sky measurements. After a 3 year period of storage it still works, although clearly I still have room for some improvements.

Finally, I put the 23cm feed back on and built a new 23cm VLNA. Sun noise to cold sky measurements were a bit better than when that system was also put into storage. Mainly, I think, because the improvements I made to the dish cage mounting have been beneficial on here as well.

Perhaps too warm for the soldering irons this month? Ed.

New World Distance Records Set on 2.3 and 3.4 GHz

Source: <http://www.arri.org/news/view/new-world-distance-records-set-on-2-3-and-3-4-ghz-ham-bands>
via <http://icqpodcast.com/news/2015/7/12/new-world-distance-records-on-23-and-34-ghz-amateur-ham-radio-bands>

Two California radio amateurs — one of them in Hawaii — have set new world distance records on the 2.3 and 3.4 GHz microwave amateur bands. Wayne Overbeck, N6NB, operating from a radio-equipped rental car on the big island of Hawaii, worked Gregory Campbell, W6IT, operating Overbeck's own fixed station near Orange, California, on both bands — a distance of more than 4024 km (2495 miles). The contacts blew away records that had stood for more than 20 years and more than doubled the previous distance record for a two-way voice (SSB) contact at those frequencies, Overbeck said, adding that most previous microwave distance records have been set using CW.

"Ours was the first-ever SSB contact between Hawaii and the mainland on 2304," Overbeck noted. He said Chip Angle, N6CA, and KH6HME (SK) made the first transpacific SSB contact on 3.4 GHz in the 1990s.

The record-setting contacts occurred on June 19 (June 18 in Hawaii) on 2.3 GHz at 0257 UTC and at on 3.4 GHz at 0300 UTC. W6IT was in grid square DM13cs, while N6NB/KH6 was in BK29hq. According to the [database](#) of distance records maintained by Al Ward, W5LUA, the old records were 3982 km, set on by N6CA and KH6ME on July 14, 1994, on 2.3 GHz (CW) and on July 28, 1991, on 3.4 GHz (SSB).

Ofcom

Ofcom has advised us that they will be drawing up plans to revoke licences that have not been re-validated as required by the licence conditions.

Every week about 200 licences are due for re-validation so make sure that yours is up to date! You can re-validate online via the Ofcom website or by email to amateur.validations@ofcom.org.uk

Finningley

Test Bench

Martyn Gawthorpe G8FEK

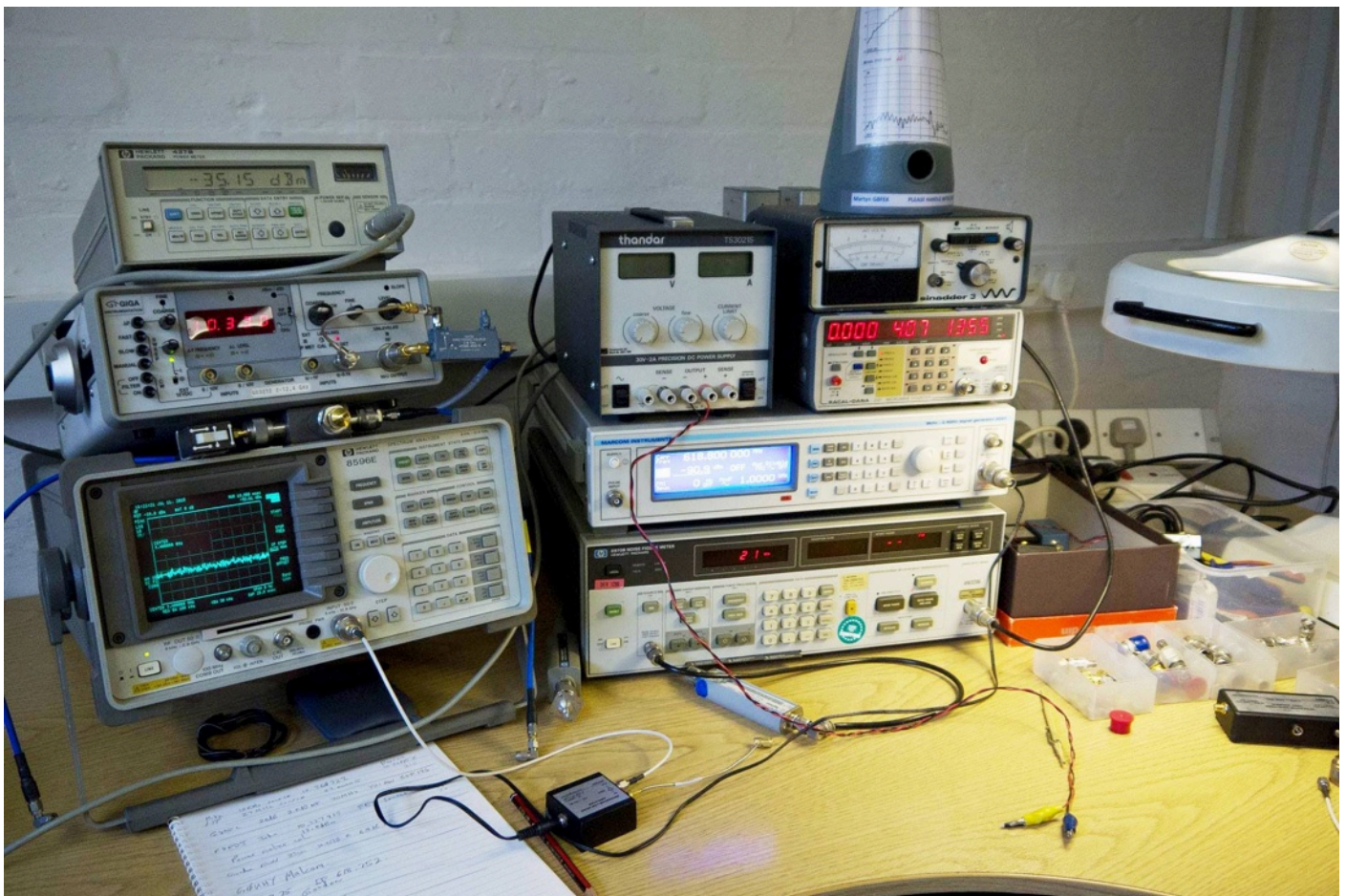
The test bench at the Finningley Round Table provided a wide ranging measurement capability ...

- Noise figure and gain 10MHz through 12GHz (continuous)
- Precision power measurement 100kHz through 18GHz
- Return loss 5MHz through 12GHz
- Signal generation 9kHz through 12GHz
- Rubidium locked counter

Many thanks to G3LYP, G8AFC, G8FDJ, G0EWN, G0UHY, G4EBF, G4MVU and M0DTS for the opportunity to test and tune a wide range of equipment ...

- Low noise amplifiers 70MHz through 10GHz.
- Local oscillator sources 27MHz through 10GHz.
- LNB sensitivity.
- Various bandpass filters.
- 10GHz and 24GHz transverters.
- Homebrew power meter calibration, 50MHz through 10GHz.
- 10GHz test source calibration.

Please bring along your equipment for test/alignment next year!



Antenna test range

Antenna range tests Finningley RT		12 July 2015			
Band: 1.296 GHz				Relative	
				Level	Gain
Antenna description	Reading	Range	Total	dB	dBi
Reference Antenna	-2.2	-20	-22.2	0.0	14.8
G8FEK Conical helix WB	-1.9	-30	-31.9	-9.7	5.1
Band: 2.320 GHz				Relative	
				Level	Gain
Antenna description	Reading	Range	Total	dB	dBi
Reference Horn	-7.5	-30	-37.5	0.0	12.7
G0EHV Tonna	-2.9	-30	-32.9	4.6	17.3
G0EHV Whisky Can feed	-5.4	-40	-45.4	-7.9	4.8
G8FEK Conical helix WB	-8.2	-40	-48.2	-10.7	2.0
Band: 3.400 GHz				Relative	
				Level	Gain
Antenna description	Reading	Range	Total	dB	dBi
Reference Horn	-6.5	-40	-46.5	0.0	12.7
G3AAF Horn (wide vertical beam)	-0.9	-40	-40.9	5.6	18.3
G8FEK Conical helix WB	-8.0	-50	-58.0	-11.5	1.2
Band: 10.368 GHz				Relative	
				Level	Gain
Antenna description	Reading	Range	Total	dB	dBi
Reference Horn	-4.8	-30	-34.8	0.0	17.2
G0EWN (Round flange) Horn	-8.2	-30	-38.2	-3.4	13.8
G0EWN (Square flange) Horn	-9.8	-30	-39.8	-5.0	12.2
M0DTS Sky dish and feed	-8.2	-10	-18.2	16.6	33.8
G0EHV Sky dish and feed	-2.7	-20	-22.7	12.1	29.3
G0EHV Sky dish and feed-less flex	-8.5	-10	-18.5	16.3	33.5
G4AAF Brass Horn	-4.7	-30	-34.7	0.1	17.3
G0VHY PW Essex/penny feed	-6.0	-20	-26.0	8.8	26.0
Band: 24.048 GHz				Relative	
				Level	Gain
Antenna description	Reading	Range	Total	dB	dBi
Reference Horn	-4.0	-50	-54.0	0.0	13.0
M0DTS Sky dish + 24GHz WG feed	-2.0	-30	-32.0	22.0	35.0

Finningley pictures

Sam Jewell G4DDK



Bargains in the Barn



and more inside



Behave! No sniggering at the back!



Have you risk-assessed this?



Don't drop it, Peter!



Anyone know what this does?



Activity News : June 2015

By Bob Price G8DTF

Please send your activity news to:

scatterpoint@microwavers.org

Introduction

This month there are some reports of activity in the UKACs and Microwave Group Contests, plus some other activity outside contest periods.

June 23cm UKAC

From Eddie G0EHV IO84

As usual out at the portable site in IO84 for UKACs on 21st June.

It seemed to be a very busy night, lack of 'KST meant mostly calling CQ and a bit of search and pounce. Surprisingly 90% of my QSO's were this way.

Internet reconnected later to allow a chance to chase a couple of valuable multipliers so a total of 42 QSOs in 12 U.K. squares worked.

Best of the bunch was G4LDR @ 414Km, but 5 others in IO91 were a good boost to the score.

Conditions seemed to be average, but QSB was noticeable needing quite a few repeats. There was also quite a nice musical radar signal all over the band, possibly a temporary one at Otterburn ranges!

Usual TS-2000X, 100W PA and 55 element Tonna at 15 feet or so. Thinking of a possible change of masthead preamp, something feels not quite right with my existing ATF10136.

From Bob G8DTF IO83

A busy night in IO83. The IC910x is proving to be better on both RX and TX than the old system. I worked 11 stations in IO83. I also worked 11 UK locator squares. The best DX of the evening was G0PEB/P in IO90 at 336km.

UKpWave Group June Low bands Contest

From David G1EHF IO90

The M0HNA/P team ventured over the Solent to the Isle of Wight for the June Low Band session. The site was in IO90JO, just above Ventnor on the South East corner of the island. We were lucky with the weather this time, which was fine, warm and with low wind speed. Radio conditions seemed fairly average, with the usual UK stations worked on the three bands, although the extra distance helped the points tally and there were a few continental stations worked over the largely sea-path to the East. We managed 29 contacts on 1296MHz with best DX DL0GTH at 846km, nine on 2320MHz with same best DX and four G stations on 3400MHz. We were disappointed that, having got an NoV coverage for the site, no-one else had 2300MHz available yet. Maybe a few more will be ready by November. Many thanks to Huw, G8IBL for his hospitality.



MOHNA/P team on the Isle of Wight for the June Low Band session.
The site was in IO90JO, just above Ventnor.

UK μ Wave Group 24/47GHz contest

From Keith GW3TKH IO81

The weather was dry and overcast. I started at The British, IO81KR. Signals were 59+ on both bands with G8KQW/P on Cleeve Common, IO81XW @ 72km and with G8CUB/P at Hackpen, IO91CL @ 97km. QSO's were easy in FM.

Moving to Cefn y Galchen, IO81LS the shorter paths produced weaker signals on both bands. I had to resort to SSB to work G8CUB/P on 47GHz.

Tests on 24GHz with the G3ZME/P team and with G4CBW were unsuccessful. The paths are over the

Blorengie ridge, 1Km away and 80m higher. It sometimes works to Brown Clee, but not this time.

The final move was to the top of the Gospel Pass, below Hay Bluff, IO82KA. A slow drive due to sightseers on the narrow tracks. Luckily G4CBW was still around near the end of contest, we worked immediately I set up, on 24GHz SSB for my ODX of 129km.

Photo shows the take off towards G4CBW, IO83UB from IO82KA.



June SHF UKAC

From Bob G8DTF IO83

A very busy evening indeed try to do 3 bands (6m, 13cm and 9cm). Activity levels on 13cm were a little down on normal with a few stations missing, no doubt due to the later hours of the contest. On 13cm I worked a total of 18 stations in 6 locator squares. QSOs over 200km were with GM4CXM IO75, M0GHZ IO81, G8CUL IO91 and G4LDR IO91.

On 9cm just 3 stations worked, 2 in IO83 and one in IO93.

3cm

From John G4BAO JO02

G4CBW	IO83	TR	190km
G4WLC/P	IO81	TR	166km
G4DDK	JO02	TR	79km
G4LDR	IO91	TR	181km
G4ODA	IO92	TR	60km
G4KUX	IO94	TR	298km
GØLGS/P	IO81	TR	158km

UKµWave Group 5.7/10GHz Contest

From Keith GW3TKH IO81

Pete, G4HQX and I arrived at Cefn y Galchen, IO81LS, at 0900 in thick mist, torrential rain and high winds with the Met Office promise of it clearing by 1200. The sun eventually came out at 1500 and after moving the vehicles around to form a windbreak, we set up the gear.

As we had lost so much time, my main interest was to check out the newly assembled 1m dish system, the first time it had been used in the field. It was pleasing to find that all the maths had been done correctly and holes drilled in the right places. The only problem reported was a chirp on 10GHz CW, which turned out to be low volts on the rubidium reference, which was easily fixed.

Running short of time, I worked 5 stations on 10GHz, ODX F6DKW @ 501km.

On 5.7GHz ODX G4LDR @ 124km.

Pete worked 3 stations on 10GHz, ODX G4LDR @ 124km. And on 5.7GHz ODX G4LDR.

Picture shows GW3TKH assembling the 1m dish system.



10GHz cumulative

From John G4BAO JO02

G8KQW/P	IO81	TR	287km
GØPEB/P	IO9Ø	TR	210km
G8CUB/P	IO92	TR	33km
M/VK4OE/P	IO92	TR	33km
G4LDR	IO91	TR	181km
G4CBW	IO83	TR	190km
GØLGS/P	IO81	TR	158km
F6DKW	JN18	RS	414km
GW3TKH/P	IO81	RS	229km

Other Activity

From John G4BAO JO02

Great 10GHz rainscatter yesterday (5th June) from Eastern England to the near continent. Many 10GHz beacons plus QSOs with F6DKW (CW) F5DQK (CW and SSB) both in JN18 PA0BAT (59+ SSB), JO31, ON4IY (SSB and CW), JO20, F1NPX/P (SSB) JN19 and ODX DF6IY (not DF6NY like my tweet!) at 59+ on SSB at 689km in JN48.

Today I got my 23cm antenna back up so am now QRV on 23 and 3cm again. Should be running QRO in 23cm soon when I commission my new amplifier.

24GHz under repair, but close. I have a new preamp to fit hopefully this week.

13cm didn't really "float my boat" so it's gone and the 4/6m dual-bander stays up through the winter with the 23cm yagi just above it! can't risk the extra weight and windage of the cross boom for the 23/13 combination.

More RS on the 11th and 12th, this time backscatter with G4RGK, both of us beaming at the North Sea.

From Tony G4NBS JO02

13cm is currently off the mast and I've not had the time to re-instate it yet unfortunately (couple of other projects need finishing first!).

I started 2015 not expecting to be as active as last couple of years so decided I would see how well I could do on 23cm in the UKACs, without resorting to 'KST so much. I'm not decrying its use, but I felt 23cm activity has increased so remarkably in the last 5 years that it would be interesting to see what effect it had on my QSO rate.

Results have been far better than I expected. Yes, I am missing some multipliers and Aircraft Scatter QSOs, so points are probably down on what I could achieve, but it is far less stressful for my old brain trying to cope with typing and talking at the same time!

I do feel though that sometimes it was used too much as a crutch for "regular" QSOs instead of CQ or S&P when it should be left for the more marginal longer distance QSOs – glad to see that is on the decrease! I still log in and monitor it, responding to requests and resort to it occasionally for some longer paths if I hit a quite patch, so not quite a KST free zone here.

(Off Soapbox)

A few statistics if of interest

2011 Average number of QSO/session 29 (min 20, max 45).

Maximum locators (UK and Eu) worked in a session 19

2012 Average QSO 40 (35 – 46), 18 locators

2013 Average QSO 47 (37 – 54), 21 locators – I have ignored a session where I had feeder failure.

2014 Average QSO just under 54 (47 – 65), 22 locators

2015 (6 months) Average QSO 54.5 (47 – 63), 21 locators.

2011/12 saw some improvements to my aerial height, feeders and power but no changes made since last half of 2012 so I think they give a fair idea of how the band has grown up in that period.

Now to the activity report itself:–

June Low Band – 23cm

Only had a little operating time and thought UK conditions seemed good but not a lot heard while tuning around. Only DF0MU was heard and worked on CW, no other continentals heard. 13 QSO's was my tally for about 45 minutes total operating time.

June 23cm UKAC

UK conditions were slightly up on normal for me and activity seemed increased as well. QSB was a pain as so often the case but contacts seemed to come in bursts – working several in the same direction in a short period. An oddity of propagation I noticed was hearing G3XDY very strong (similar strength as if we were beaming at each other) while I was beaming South. Not getting a response I turned towards him to find no signal. Beaming back to between SE and S I could hear he was working Dutch stations. I've experienced backscatter before but I have no idea what that reflection was as it would be 90 degrees off where John was pointing at the time.

Had 59 QSO (all SSB for once) in 16 UK squares plus 5 Eu. Best was GM4AFF/P (IO86) at 550Km, followed by GM4CXM (IO75) both found by S&P.

Other QSO's over 300Km were GI6ATZ (IO74), PA0BAT (JO31), PA4GT (JO32), GU6EFB (IN89), G8PNN/P (IO95), ON4KBE (JO20) and PA0S (JO21). Needed KST for 4 of those!

Most active squares for me were IO91 & 92 (Both 10 QSO), IO83 (9), and IO93 (8).

As is so often the case there were lots of other stations missed, many heard in passing but never on their own frequency and several logged into KST but never heard at all during the evening.

Back to the soldering iron...

From John G3XDY JO02

I have been away for the last part of June, but there were some highlights in the first half of the month:

5th June - Rain scatter opening

10GHz

DF6IY	JN48EU
DK7QX	JO42KH
DJ2QZ/P	JO31QX
DL5EAG	JO31EI
DH1VY/P	JN39JF
DL3IAS	JN49EJ
DL7QY	JN59BD

5.7GHz

DL3IAS	JN49EJ
--------	--------

3.4GHz

DL3IAS	JN49EJ
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7th June - European Microwave contest

10GHz

DF0MU	JO32PC
ON4CJQ/P	JO20KW
F5KMB/P	JN19EL

5.7GHz

F5KMB/P	JN19EL
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3.4GHz

DL0GTH	JO50JP
--------	--------

2.3GHz

DL0GTH	JO50JP
F5KMB/P	JN19EL

1.3GHz

DK2ZF/P	JO43WJ
DF0YY	JO62GD
OK2AJO60JJ	
DL0GTH	JO50JP

...and finally

I want to encourage you get on the air as often as possible and report your activity to clearly document use of the amateur microwave bands. This means not just DX and EME, but also local activity with ATV, low power or WB equipment. Please send your reports to Scatterpoint@microwavers.org, remember the deadline is the 1st of the month.

73 Bob Price G8DTF

Contest Results

John G3XDY, UKuG Contest Manager

May 2015 5.7GHz Contest

Whilst an improvement on the turnout in the equivalent event in 2014, activity levels on 5.7GHz continue to be a concern. The strong winds and rain did affect participation, and conditions were poor. Congratulations to Telford & District RS G3ZME/P as the leading station, with Neil G4LDR as runner up.

5.7GHz May 2015						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX km
1	G3ZME/P	IO82QL	4	538	G4LDR	168
2	G4LDR	IO91EC	3	422	G3XDY	223
3	M0HNA/P	IO91GI	4	396	G3XDY	200

May 2015 10GHz Contest

The weather did not cooperate for this event, with strong winds and rain causing at least one entrant to abandon portable operation before the off. Conditions were equally poor, with the rain not helping much. Congratulations to the leading station in the Open section, Neil G4LDR, and runner up Nick G4KUX. The Combe Gibberlets group took the lead in the restricted section.

10GHz May 2015						
Open Section						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX km
1	G4LDR	IO91EC	12	2705	F6DQZ	400
2	G4KUX	IO94BP	4	1032	G4LDR	395
3	G3ZME/P	IO82QL	7	960	G4KUX	246
4	G3UKV	IO82RR	4	609	G4KUX	218
5	G3VKV	IO81XV	5	353	G3ZME/P	77
6	GW3TKH/P	IO81LS	3	316	G4LDR	124
Restricted Section						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX km
1	M0HNA/P	IO91GI	9	1194	G4KUX	368
2	G1DFL/P	IO91OM	0	0		0

June 2015 Lowband Contest Results

The number of entries recovered to a degree this month, and the extra activity from German stations in their microwave contest gave many entrants some good DX.

This time out the Combe Gibberlets (M0HNA/P) were victors on 1.3GHz, with Mike G8CUL as runner up. These two stations were well ahead of the rest of the entrants, and both worked some excellent DX into Germany.

On 2.3GHz G8CUL retained his crown as winner for the fourth session in a row, with M0HNA/P in runner-up slot. Once again continental DX was much in evidence, with G4LDR making a QSO at 874km with DL0GTH for the best DX of the day.

More activity was apparent on 3.4GHz this time, with M0HNA/P taking the top slot and G4BRK in the runner up position.

The overall winner was M0HNA/P with leading positions on 1.3 and 3.4GHz, and the runner up slot on 2.3GHz. Overall runner up was G8CUL, who won 2.3GHz and was runner up on 1.3GHz.

Certificates go to the overall Winner M0HNA/P and Runner-up G8CUL and to the following winners and runners up:

1.3GHz: M0HNA/P, G8CUL 2.3GHz: G8CUL, M0HNA/P 3.4GHz: M0HNA/P, G4BRK

June 2015 Low Band Contest Results						
1.3GHz						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX Kms
1	M0HNA/P	IO90JO	29	8368	DL0GTH	846
2	G8CUL	IO91JO	25	7152	DL0GTH	844
3	M5MUF	IO92JP	14	3091	DK0PU	560
4	G4BRK	IO91HP	11	2872	DF0MU	597
5	G4NBS	JO02AF	13	2678	GM4CXM	503
6	G4LDR	IO91EC	11	2494	DL0GTH	872
7	G3TCT	IO81QC	9	2196	ON4CJQ/P	525
8	G8EOP	IO93EQ	8	1514	M0HNA/P	345
9	G1DFL	IO91NL	7	509	G3XDY	158
2.3GHz						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX Kms
1	G8CUL	IO91JO	13	3143	PA0BAT	529
2	M0HNA/P	IO90JO	9	2133	DL0GTH	846
3	G4LDR	IO91EC	7	1795	DL0GTH	872
4	G4BRK	IO91HP	4	684	GM4CXM	517
5	G8EOP	IO93EQ	4	546	G3XDY	263
3.4GHz						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX Kms
1	M0HNA/P	IO90JO	4	445	G3XDY	234
2	G4BRK	IO91HP	2	125	M0HNA/P	117
3	G4LDR	IO91EC	2	96	M0HNA/P	63
Overall						
Pos	Callsign	1.3GHz	2.3GHz	3.4GHz	Total	
1	M0HNA/P	1000	679	1000	2679	
2	G8CUL	855	1000	0	1855	
3	G4LDR	298	571	216	1085	
4	G4BRK	343	218	281	842	
5	M5MUF	369	0	0	369	
6	G8EOP	181	174	0	355	
7	G4NBS	320	0	0	320	
8	G3TCT	262	0	0	262	
9	G1DFL	61	0	0	61	

Low Band Championship 2015

After four events, the best three events count towards the total

Overall						
Pos	Callsign	3/8/15	4/19/15	5/3/15	6/7/15	TOTAL
1	M0HNA/P	1872	2463	0	2679	7014
2	G8CUL	2000	2000	2000	1855	6000
3	G4LDR	1999	0	1319	1085	4403
4	G3UKV	1332	1471	0	0	2803
5	G4KIY	1203	0	980	0	2183
6	G4BRK	0	1196	0	842	2038
7	G8EOP	797	492	0	355	1644
8	M0WXB/P	625	679	0	0	1304
9	G3UVR	638	582	0	0	1220
10	G4NBS	814	0	0	320	1134
11	2E0NEY	0	902	0	0	902
12	M5MUF	165	311	186	369	866
13	M0GHZ	0	827	0	0	827
14	G3VKV	0	531	0	0	531
15	G4ZTR	0	467	0	0	467
16	G3YJR	0	418	0	0	418
17	G4CLA	0	341	0	0	341
18	G3TCT	0	0	0	262	262
19	G4BAO	0	0	225	0	225
20	G1DFL	24	127	0	61	212
21	G8DTF	0	208	0	0	208

1.3GHz						
Pos	Callsign	3/8/15	4/19/15	5/3/14	6/7/14	TOTAL
1	G8CUL	1000	1000	1000	855	3000
2	M0HNA/P	715	984	0	1000	2699
3	G4KIY	747	0	733	0	1480
4	G4NBS	814	0	0	320	1134
5	G4BRK	0	720	0	343	1063
6	M0BTZ	0	0	924	0	924
7	M5MUF	165	311	186	369	866
8	G4LDR	386	0	174	298	858
9	G3UKV	307	430	0	0	737
10	G8EOP	271	260	0	181	712
11	G3UVR	223	479	0	0	702
12	M0WXB/P	191	420	0	0	611
13	G4ZTR	0	467	0	0	467
14	G3YJR	0	418	0	0	418
15	G4CLA	0	341	0	0	341
16	G3VKV	0	275	0	0	275
17	G3TCT	0	0	0	262	262
18	2E0NEY	0	258	0	0	258
19	G1DFL	24	127	0	61	212
20	G8DTF	0	208	0	0	208
21	M0GHZ	0	147	0	0	147

2.3GHz						
Pos	Callsign	3/8/15	4/19/15	5/3/14	6/7/14	TOTAL
1	G8CUL	1000	1000	1000	1000	3000
2	M0HNA/P	736	479	0	679	1894
3	G4LDR	613	0	145	571	1329
4	G8EOP	526	232	0	174	932
5	G3UKV	447	479	0	0	926
6	G4KIY	456	0	247	0	703
7	M0WXB/P	434	259	0	0	693
8	G3UVR	415	103	0	0	518
9	G4BRK	0	215	0	218	433
10	2E0NEY	0	321	0	0	321
11	G4BAO	0	0	225	0	225
12	M0GHZ	0	159	0	0	159
13	G3VKV	0	65	0	0	65

3.4GHz						
Pos	Callsign	3/8/15	4/19/15	5/3/14	6/7/14	TOTAL
1	M0HNA/P	421	1000	0	1000	2421
2	G4LDR	1000	0	1000	216	2216
3	G3UKV	578	562	0	0	1140
4	G4BRK	0	261	0	281	542
5	M0GHZ	0	521	0	0	521
6	2E0NEY	0	323	0	0	323
7	G3VKV	0	191	0	0	191

24GHz Contest June 2015

This was the first in the new series of mm-wave events and attracted 5 entries, with the top three making use of the rover rule to operate from multiple locations. Please include details of all the locations used in the soapbox section of your log, so your adjudicator can unravel who operated when and from where!

Congratulations go to Ian G8KQW/P as winner, with Keith GW3TKH/P in the runner up slot. Both stations achieved their best DX with fixed station G4CBW.

As this format becomes more established it is hoped that the number of participants and entries will increase.

24GHz Contest June 2015						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX km
1	G8KQW/P	IO81XW	7	528	G4CBW	127
2	GW3TKH/P	IO81KR	5	499	G4CBW	159
3	G8CUB/P	IO91CL	4	304	GW3TKH/P	97
4	G3ZME/P	IO82QL	2	102	G8KQW/P	73
5	G3UKV	IO82RR	2	70	G4CBW	41

47GHz Contest June 2015

In previous years there has only been one event per year on 47GHz, this year we have a series of four contests, and on the first outing it was pleasing to see a reasonable entry level given the small numbers currently equipped for this band. Hopefully these contests might encourage others to get building and operating too.

Scores of all three stations were quite close, but Keith GW3TKH/P came out as the overall winner, with Ian G8KQW/P in runner up position. Again roving was used to good effect to boost the scores.

47GHz Contest June 2015						
Pos	Callsign	Locator	QSOs	Total	ODX Call	ODX km
1	GW3TKH/P	IO81KR	4	340	G8CUB/P	97
2	G8KQW/P	IO81XW	5	325	GW3TKH/P	78
3	G8CUB/P	IO91CL	4	303	GW3TKH/P	97

The 2015 Crawley Roundtable, Sunday 20 September



We will be holding a heat for the UK Microwave Group annual project contest for the [G3VVB trophy](#). Please do bring along your constructed equipment or project and enter. Entries do not necessarily need to have been finished during the last year. This year the contest will also accept software entries as well as hardware. The winner of this round will go on to be considered together with entries from all the other roundtables over the past year after this event.

The morning will feature the usual 'bring and buy' sale, so if you have something to sell then please bring it along.

The program this year offers the microwaver something different - come along and support the construction contest and hear the talk(s).

WANTED: talks for the Crawley RT

At the moment I only have one talk scheduled and really need two more. I'd really like to fill all three slots of either 30 or 45 mins if possible, so if you are able to present a talk on any aspect of microwaves or a related subject then please contact me direct at chris@g0fdz.com

As I said last time you do not have to be an "expert" to give a talk – for example it could be about your recent portable activity or similar and not necessarily of a technical nature. We can supply a projector and laptop if required so please don't be shy and do come forward.

Thanks and regards

Chris G0FDZ

Please contact Chris G0FDZ if you have a talk!

Location: Crawley Amateur Radio Club

<http://www.carc.org.uk/>

10:00AM	Venue opens
12:00	UKuG Project contest round judging commences
13:00	Lunch (rolls, sandwiches, tea/coffee available)
14:00	Opening address and the results of the Project contest heat
14:15	Talk-1 - tbc
15:00	Talk-2 - tbc
15:30	Break (tea & coffee available)
16:00	Talk-3 - tbc
16:30	End of meeting

If you need further information, contact Chris Whitmarsh G0FDZ or Derek Atter G3GRO

Access to Site:

The access road into Tilgate Recreational Centre and the CARC Clubhouse (Hut18) is via the sliproad at the new traffic lights on the southbound carriageway of the A23 (Brighton Road), just south of Crawley heading towards Brighton, and about 200m from the Broadfield Football Stadium roundabout which is well signposted.

The Clubhouse is accessed via a fairly narrow track for about 200m. Watch out for anti-traveller caravan chicanes then turn right at the 3rd sleeping policeman!

More Directions: [CARC Directions](#)

UKuG Microwave Contest Calendar 2015

Contest results are also published online - please follow the link from the UKuG Contests Page at:

www.microwavers.org/?contesting.htm

Events calendar

2015

July 11 – 12	Finningley Round Table	www.g0ghk.co.uk/
July 24–26	Amsat-UK Colloquium, Holiday Inn, Guildford, Surrey	www.amsat-uk.org/colloquium/
Sept 5–6	BATC CAT-15, Finningley	
Sept 6 – 11	European Microwave Week, Paris	www.eumweek.com/
Sept 11 – 13	60.UKW Tagung Weinheim	www.ukw-tagung.de/
Sept 20	Crawley Round Table	
Sept 25 – 26	National Hamfest	www.nationalhamfest.org.uk/
Oct 9–11	RSGB Convention	rsgb.org/convention/
Oct 15–18	Microwave Update, San Diego	www.microwaveupdate.org/
Nov 7	Scottish Round Table	www.gmroundtable.org.uk/

2016

Jan 23	Heelweg	www.pamicrowaves.nl/
Apr 9	CJ-2016, Seigy	http://cj.ref-union.org/
Apr 16–17	Martlesham Microwave Round Table & UKμG AGM	
Apr 23	RSGB AGM, Scotland	
May 20 – 22	Hamvention, Dayton	www.hamvention.org/
Jun 24 – 26	Ham Radio, Friedrichshafen	www.hamradio-friedrichshafen.de/
Aug 19–21	EME2016, Venice	www.eme2016.org/
Oct 3 – 7	European Microwave Week, London	www.eumweek.com/
Oct 7 – 9	RSGB Convention	rsgb.org/convention/

2017

Jun 23 – 25	Ham Radio, Friedrichshafen	www.hamradio-friedrichshafen.de/
Oct 8 – 13	European Microwave Week, Nurembourg	www.eumweek.com/

Loan Equipment

Don't forget, UKμG has loan kit in the form of portable transceivers available to members for use on the following bands:

5.7GHz

10GHz

76GHz

Contact John G4BAO for more information.