



*An Amateur Radio publication for the Microwave Enthusiast*

# scatterpoint

Published by the UK Microwave Group

**2009 NOVEMBER-DECEMBER**

**Happy Birthday UK Microwaves !**

**2009 - THE YEAR OF ANNIVERSARIES**

60 years since the first UK amateur microwave experiments  
10 years for the UK Microwave Group  
30 years for the Martlesham Microwave Round Table

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***Latest News ...***



**MANY THANKS TO ALL OUR  
CONTRIBUTORS THIS NOVEMBER-  
DECEMBER ...  
WITHOUT YOU THERE WOULD BE NO  
SCATTERPOINT!**

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## From the Editor's Desk

On this 10th Anniversary of the UK Microwave Group I'd like to thank everyone who has been involved with UKuG over the years, including readers of Scatterpoint (which "rose from the ashes" of the RSGB Microwave Newsletter in 2004) and all members of the committee over these years, for the tremendous support they have given to UK microwaves in general and to this newsletter. We've seen a remarkable growth in amateur microwaves over the past ten years and long may it continue.

That said, I have to report a very disappointing year for some of our higher bands. The 47GHz and 76GHz bands have seen no reported contacts during the UKuG activity and contest weekends. 24GHz is declining at a

rather disturbing rate in the Northern half of the country. We have to address this urgently. Wearing the hat of a millimetre band enthusiast, rather than the Editor of this newsletter, I have written a small contribution on the theme of 24GHz and 47GHz operating. It appears in the spare pages left after Robin's Activity News column. Comments are welcome.

## Finally a Very Happy Christmas and a Prosperous 2010 !

The next edition of SP will appear in late January 2010.

News, views and articles for this newsletter are always welcome. Please send them to G3PHO (preferably by email) to the address shown above. **The closing date is the Friday at the end of the first full week of the month** if you want your material to be published in the next issue.

## 3400 MHz (3.4GHz, aka 9cm) OFCOM News

Further responses have been added to Ofcom's Website re the 3400 MHz situation (including quite a few concerned commercial satellite operators).

However, the key one of interest to us as amateurs is (as my grapevine had provisionally indicated) the Home Office one which formally proposes the move of Government/Police heli-tele stuff to move down to be next to the core Amateur/Nato block of 3400-3410MHz. Take a look at:

[http://www.ofcom.org.uk/consult/condocs/3\\_4ghz/responses1/HOSDB.pdf](http://www.ofcom.org.uk/consult/condocs/3_4ghz/responses1/HOSDB.pdf)

Others are at: [http://www.ofcom.org.uk/consult/condocs/3\\_4ghz/responses1/](http://www.ofcom.org.uk/consult/condocs/3_4ghz/responses1/)

73 from Murray G6JYB,  
Microwave Manager

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## WW2R Martlesham Presentation now online ...

Having now got safely back to the USA with Meg, I have just uploaded my "Remote SDR operation" presentation I gave at Martlesham.

It is at: [http://g4fre.com/remote\\_mh.pdf](http://g4fre.com/remote_mh.pdf)

Dave, WW2R

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## FOR SALE

I have a couple of 'bits' that I will not need any longer ...

- 1) a WG16 Rotary Joint good for home installations: **£25 plus p/p** (heavy).
- 2) 2 x Hp Thermistor heads (I think type 449) for the old valve Power Meter, checked but sold as NO returns as they are easily damaged! **£20 each**

73 from Bob G3GNR

email: [corbrae@yahoo.co.uk](mailto:corbrae@yahoo.co.uk)

## UK MICROWAVE GROUP SUBSCRIPTION INFORMATION

The following subscription rates now apply.

**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!

**Your personal renewal date is shown at the foot of your address label if you receive Scatterpoint in paper format.**

If you are an email subscriber then you will have to make a quick check with the membership secretary if you have forgotten the renewal date. From now 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 (the editor suggests having it tattooed on your forearm!).

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

Renewal of subscriptions requiring a **paper copy** of Scatterpoint are as follows:

Delivery to:	UK £	US \$	Eur €
UK	14.00	-	-
Europe	18.00	36.00	26.00
Rest of World	24.00	48.00	36.00

**Payment can be made by:**

\* **Paypal to [ukug@microwavers.org](mailto: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!)

**The standard membership rate for 2009 is:**

UK	£6.00
US	\$12.00
Europe	€10.00

This basic sum is for **UKuG membership**. For this you receive Scatterpoint for **FREE** by email. If you want a paper copy **then the higher rates apply**.



## New UKuG Chairman's Introduction

*"Yet across the gulf of space, minds that are to our minds as ours are to those of the beasts that perish, intellects vast and cool and unsympathetic regarded this earth with envious eyes, and slowly and surely, drew their plans against us"*  
(HG Wells, "War of the Worlds")

My two aims over my tenure as chairman are to expand interest in microwave operating and construction and to deal with the constant threat to our bands from commercial interests by showing that we are using them and, more importantly, doing useful things with them.

The HG Wells quote above, I think, sums up the threat some of our bands are under. Coming from a 35 year career in commercial wireless, I am

acutely aware of the privileged position we hold with such unprecedented access to spectrum and we have to fight to justify our presence there. We must support our representatives who spend much unpaid and often unrecognised time dealing with the spectrum managers. The UK Microwave group will continue to do this through its dealings with Ofcom and the Spectrum Forum but there is much that you can do to help in other ways.

**"Publish and be Damned"** said the Duke of Wellington in response to a blackmail threat. Let's get our activities in the public domain. Whether it be in RadCom or Scatterpoint, your own website or the local radio club, get out there and tell the world about the Microwave bands. We are fortunate in having two of the major Radcom columns written by microwavers and an editor who is very "microwave friendly" so get your copy in to Sam, Andy and Giles.

**"Get on the bands"** Support the contests and activity days, contact your local contest group and find out if they are interested adding a microwave station to their portfolio. Start a regular sked with someone who's "just out of range". You'd be surprised; you might actually work them and, if not, you'll be encouraged to build that new antenna preamp or PA, or try that new digital mode.

**"Support your local Microwaver"** If you've got test equipment, a lathe, a pillar drill, a milling machine, don't keep it to yourself. Encourage interested locals by offering to help with their projects. You might even make a few bob on the side or a donation to your favourite charity by providing such facilities!

**Finally,** I'd like to thank those people who supported my election as UK Microwave Group Chairman for 2009-10. It's a privilege to be elected and follow in the footsteps of my illustrious predecessors. I won't bore you with a page about my life story or CV. If you must, look at the "about me" pages on g4bao.com

I look forward to meeting many of you in person during my tenure, and please feel free to email me at [chairman@microwavers.org](mailto:chairman@microwavers.org) if you have something to contribute or want to get involved.

**73 John Worsnop G4BAO**

# Serial Control for the VertiCom MTS1500 Synthesizer

Andy Talbot G4JNT July 2009

A little while ago, I bought a VertiCom MTS 1500-151-01 12GHz Synthesizer module from Dave Robinson, G4FRE/WW2R. Dave supplied a write up and had already worked out the programming codes needed to be sent as a serial word to the module to set it onto any frequency within its operating range. All details are available from [1] and will not be repeated here.

Dave already supplied PIC code for blowing into a 12F629 to set the unit onto either of two frequencies [2] – but to change these necessitated getting into the PIC assembly listing and hard coding several register values. I wanted to be able to update the values on-the-fly with a simple RS232 connection using ASCII commands from *Hyperterminal*.

Having just written some PIC code to control the LMX23x6 synthesizer in the Bridgewave Synthesizer module [3] this was a good starting point. Fortunately Dave's PIC / module interface used the same PIC device, and almost the same pin connections (just two swapped) as mine, so I decided to make the VertiCom interface fully compatible with his existing PIC module, so the only changes needed would be addition of the RS232 interface (a resistor and three wires to a 9 way D connector) and, of course, reprogramming with the new firmware.

The RS232 interface is arranged to share the same pins on the 12F629 as those used for clock and data from the device programmer, and a convenient way to manage both in-circuit programming and RS232 control is to install a four way header as shown in Figure 1 (see *Verticom.gif* for a higher quality version) A resistor is needed in the RS232 interface to limit the negative current (unfortunately this resistor can't be mounted on the PCB as it prevents the PIC programmer from working). The same serial interface is used for my Bridgewave controller [3], LMX1500Synth module [4] and [5] and programmable Beacon Keyer [6].

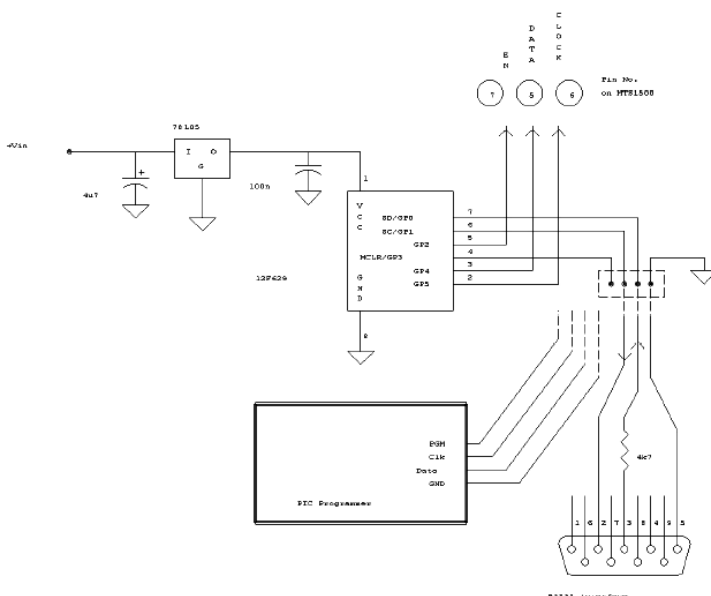


Figure 1 Interfacing the PIC

# Updating and interfacing the PIC controller

1. Download MTS15CTL.ZIP from [7] , extract the PIC firmware MTS15CTL.HEX and (re)programme the 12F629. The .ASM source code is included for reference.

2. Make up an interface lead with a 9 Way D Female connector and 4k7 resistor as shown in Figure 1, and connect to your computer's COM port.

3. Run *Hyperterminal*, with the parameters set to 1200 Baud, 8 Bit data, No parity, 2 stop bits and no handshaking. 1200 N81

The Synthesizer is controlled with ASCII commands. All commands must be terminated with a Carriage Return , shown here as [cr]

In the examples shown below, data you type is shown underlined such as **N12345[cr]** , and responses from the controller shown in italic ***N – 12345***

Do not put any extraneous spaces into commands – in the examples below a space is shown before the [cr] purely for clarity. If a command has the wrong syntax, no response will be received from the controller. Upper or lower case letters are accepted.

Connect the interface and turn on the synthesizer. A display similar to this one on the right should appear and shows the values stored in non-volatile memory with a brief description of the command protocol to change them.

Each of the five registers R, P, S, C and G can be set individually. The data is entered as hexadecimal ASCII values with either two, three or four hex digits following the register name. A modified version of Dave's spreadsheet for generating the values, *MTS1500\_JNT.xls* included within this archive gives the hex data needed.

The values are entered one at a time but are not immediately sent to the MTS1500 module. For example to set P = (hex) 45, S = 12 and R = 0123 Enter :

**P045[cr]**

The controller will respond with ***P-045***

Then type **S12[cr]** Generating the response ***S-12***

Then **R0123[cr]** Generating the response ***R-0123***

When all values have been successfully entered, press **U[cr]** to Update the module and start generating the new frequency.

The controller will respond with :

```
Verticom Synth Control
G4JNT/WW2R
Commands:
Rxxxx
Pxxx
Sxx
Cxxx
Gxx
[U]pdate
[W]rite EE
R 003F
P 061
S 10
C 19C
G 05
```

```
R 0123F
P 045
S 12
C 19C
G 05
Updated
```

```
R 0123
P 045
S 12
C 19C
G 05
Written
```

To save these to non-volatile memory so the controller will boot with the new values next time it is turned on, enter **W[cr]** to give the response:

### To avoid confusion...

Note that the hex values that have to be entered are not the same as in Dave's original spreadsheet *MTS1500.xls* due to bit and byte alignment issues in the way I send data across the interface.

To make comparisons and help with checking, a debug facility has been built-in to the PIC code to show the actual string of data sent to the module (I only needed this originally for getting the code operational, but decided to leave it in for convenience).

Type **D[cr]** to toggle the Debug mode on or off.

Each time it is invoked the controller will respond with **DEBUG 0** or **DEBUG 1** for on or off respectively.

If Debug mode is ON, then whenever a **U** or **W** command is issued the contents of the two control words CW1 and CW2 are shown in binary, and can be checked against those in MTS1500.xls.

MTS1500\_JNT.xls shows the hex values.

```
R 003F
P 061
S 10
C 19C
G 05
CW1 1000000001111111000000000000000000000000
CW2 00001100001001000000000001100111000000000101
Updated
```

### References:

- [1] <http://www.g4fre.com/mts1500.pdf>
- [2] <http://www.g4fre.com/mts1500.zip>
- [3] [http://www.g4jnt.com/BridgeWave\\_Synth.pdf](http://www.g4jnt.com/BridgeWave_Synth.pdf)
- [4] <http://www.g4jnt.com/synthblb.asm>
- [5] <http://www.g4jnt.com/synthblb.gif>
- [6] <http://www.g4jnt.com/BCNKEYER.zip>
- [7] <http://www.g4jnt.com/MTS15CTL.ZIP>



## A new EME compass rose for W3HMS

John Jaminet, W3HMS

As an EMER, I need to point my 1296 MHz 3 m dish very precisely. I wanted to use a compass rose mounted on a 3.5 inch dish mast, with a pointer under the TV camera and turn the dish to the Azimuth shown by the camera in my station.

I found exactly what I needed at **UBR-LLC in Dillsburg, PA** as they were able to produce a compass rose for me, but more importantly, one with the following parameters:

- Adjustable size from almost illegible to 24 inches.
- Variable hole size
- Two -piece for addition to existing dish installation.
- AZ graduations can be clockwise or counter-clockwise.
- Material is 1/4 inch "Phenolic xxx" all-weather version 'do-able' in aluminium.

Vertical space needed is about 3/4 inch.

For more info, price, and terms, contact Frank Ulrich, CEO, at [Frank.Ulrich@UBR-LLC.com](mailto:Frank.Ulrich@UBR-LLC.com) or call ++1 717 432-0398.

73, John, W3HMS, 29 Sep 09

## For users of the FT817 as an IF to microwave ... by John G4EAT

I did a modification, off the internet, for deriving Volts on TX for transceiver control. It entailed taking 5 volts off a point on a sub-board on the recent model FT817ND. The mod was, in effect, the same as applied to the Icom IC202s and similar to the one for the Yaesu 290 R II.

However, in my case, it caused a lot of RF on the voltage line to the current limiting resistor. There was a capacitor between the BNC socket and the RF input to the radio in place.

To cut a long story short, it made the output drop dramatically and finally fail. The receiver remained working. The components are minute in there and with no workshop manual I thought it prudent not to make matters worse. So I sent it away for repair.

### The problem was found to be as follows:

A blown 3A pcb fuse on the main RF/IF unit feeding the PA board but also on the power socket there was the tip ring of the plug jammed inside (it had broken off the barrel of the plug. This tip makes a small switch inside the socket for changing between battery and external power source. The PA was not damaged.

So when using the transceiver for /P work, be careful when taking out and replacing the power plug.

I am going to adopt Brians G4NNS bias T arrangement if I want to use the FT817 in future for use as an IF.

For 24GHz I have just managed to find an FT790 Which I think may be more robust for /p work so I'll just use the FT817 in the shack.

I thought my eyes were ok again after the op but the SMDs on the 817 are too small for me to see properly!



# A Year of Anniversaries ...

## UK microwaves celebrates three landmark events

### 2009 is the 60th anniversary of the very first two way amateur microwave experiments in the UK.

By 1949 there were a few UK amateurs taking an interest in microwaves.

Two of them, Des Clift, **G3BAK**, and **G3LZ**, began experimenting in 1949 and, in January 1950, were rewarded with the first UK two-way contact on the 10GHz band. Des (pictured below) eventually migrated to Australia where he carried on his microwave activities, mainly on the 5.6GHz band, until his death in early 2005.

He was **VK2AHC** in New South Wales at first but then relocated to South Australia as **VK5ZO**.

His 10GHz equipment for that 1950 contact with **G3LZ** consisted of a mains powered klystron transmitter/receiver and the path was just a "few miles" (actually about 1.75 miles) across the Manchester Ship Canal in North West England. Of just as much interest was his use of 70cm for talkback. At that time even the 432MHz band was for radio pioneers!

Right:

Des **VK5ZO**  
(ex **G3BAK**)  
Pioneer of  
UK amateur  
microwaves



**Happy 10th Birthday to the UK Microwave Group**, formed in 1999 at the Martlesham RT of that year. Initial membership was around 60 and has since grown to almost 400, with members in more than 20 DXCC entities! It may be the world's largest uW group !

### 2009 is the 30th anniversary of the Martlesham Microwave Round Table ...

Eventually, and arguably, becoming Western Europe's premier amateur microwave event, Martlesham RT started 30 years ago on the 30th September 1979. The event was announced in RSGB's Radio Communication magazine. This was long before the idea of a UK Microwave Group was born. In those days amateur microwaves was "looked after" by the RSGB Microwave Committee and narrowband techniques were very much in the minority.

#### ***RADIO COMMUNICATION August 1979***

##### **New round table meeting place**

For some time the regular venues for microwave round table meetings have been Winchester and Sheffield. A new location has been offered by the Martlesham group, at Martlesham Heath, and the date of the first meeting is 30 September. One important difference between this meeting and the others is that it will be a ticket-only affair. The reason for this is that it is necessary to satisfy the establishment's security requirements that guests are known in advance, so that they can be checked off on arrival. If you intend to attend the event, please apply for tickets to **G3RHP**, Church Farm House, Otley, Ipswich, Suffolk, in good time so that tickets can be issued before the meeting. More than one ticket can be sent to one applicant, but please include individual names and call signs of those for whom the tickets are intended.

An ambitious programme is planned, although exact details have yet to be fixed. In the morning a general discussion will be held, with members of the Microwave Committee being present to discuss band plans, talk-back frequencies, repeaters, contests etc. In the afternoon lectures will be held on a number of topics, including propagation research and moonbounce.

It is intended to have a comprehensive set of test equipment available for checking receivers and transmitters, including automatic noise figure measurement equipment (input frequencies 30MHz and 144MHz), spectrum analysers, frequency counters, power meters, sweepers etc. Visitors are invited to bring along any equipment they wish to have measured.

The meeting will open at about 10am and will have an open-ended finishing time, so there should be plenty of time for everything. Refreshments will be available, including sandwiches at lunchtime. Further details of the meeting can be obtained nearer the date from **G4FSG**. □

# Noise figure results

## Martlesham Microwave Round Table 2009

07-Nov-09 and 08-Nov-09

Tcold = 299

Band	Callsign	System	Gain (dB)	NF (dB)
<b>144MHz</b>				
	G4BRK	PA3BIY ATF54143 Preamp	21.5	0.80
<b>432MHz</b>				
	G3LTF	G3LTF ?	21.17	0.36
	G4RGK	Cavity	19.95	0.48
	G4RGK	MGF1302 Preamp	18.46	0.43
	G3PYB	ATF4143 Preamp	22.00	2.00
<b>1.3GHz</b>				
	G3LYP	G4JNT Transverter	24.4	4.16
	G4KUX	G3WDG Preamp MGF4919	18.9	0.56
	G4DDK	G4DDK Preamp NE32584C	37.8	0.25
	G3LTF	G3LTF Preamp FHX35LG	34.9	0.43
	G4DZU	G4DDK Preamp atf36077 (13CM?)	33.8	0.70
	G4DZU	WD5AGO Preamp NE326	31.4	0.38
	G4DZU	DJ9BV Preamp FHX35LG	15.83	0.49
	G4BRK	G4DDK Preamp NE32584C	37.9	0.36
	G8BHC	Surplus gain block	19.7	13.60
	G3PYB	ATF54143 Preamp	17.9	0.46
	G4RGK	G4DDK Preamp	35.9	0.35
	G4RGK	RFHam Preamp	16.19	0.41
	G3PYB	G8OZP Tuned preamp	33.00	2.70
<b>2.3GHz</b>				
	G4FSG	DB6NT Transverter	21.4	0.83
	G0EWN	G4DDK Preamp	24.15	0.46
	G3LTF	G3LTF Preamp fhx35lg + 13dB attenuator	29.23	1.12
	G3LQR	G3LQR Preamp	16.3	0.55
<b>3.4GHz</b>				
	G8DTF	G8DTF HB Transverter	8.31	3.17
	G8DTF	C Band LNB Modded preamp	36.73	6.36
	G3LTF	DJ9BV ATF36077 Preamp	14.01	0.51
	DL1YMK	G4DDK NE32584C Preamp	24.56	0.55
<b>5.7GHz</b>				
	G4DDK	DB6NT G2 Transverter	24.4	0.83
	G3LTF	W5LUA Preamp ATF36077	11.45	1.01
<b>10GHz</b>				
	G3LYP	G3WDG Transverter	27.9	4.07
	G3LYP	G3WDG Preamp FHX04	12.3	1.18
	G4KUX	DB6NT G2 Transverter	15.0	2.89
	G8DTF	Chinese LNA	28.4	2.20
	G8DTF	G4TWJ modded LNB PREAMP	31.0	1.38
	G3LTF	G3LTF Modded LNB Preamp	21.8	1.08
<b>24GHz</b>				
	G1MPW	Alcatel transverter	14.45	4.80
	G6KIE	Alcatel transverter	-6	16.00

Noise Head Calibration: Martlesham7-8th November 2009

Freq	N (dB)	1	2		
1296	5.18	5.39	5.09	5.18	Martlesham Source
1296	15.08				M source +9.90dB G8GXX Source
10368	5.59			2.31dB	Transverter
10368	4.13			3.47dB	indicated G8GXX source with 10dB pad
10368	15.33			-7.44dB	indicated

Quick-build Evanescent filters for 5760 and 3400MHz

From:Andy Talbot <andy.g4jnt@googlemail.com>

Two evanescent filter designs for 3400MHz and 5760MHz can be found at:

<http://www.g4jnt.com/EVANFILT.pdf>

These are easy to build, being little more than M4 screws tapped into WG16 and WG18 respectively. Tuning-up using Dishal's method is straightforward if you can measure return loss. They give all the filtering needed for transverters on these bands using a 144MHz IF. The 3.4GHz filter originally appeared in the Microwave Newsletter (the forerunner to 'Scatterpoint') around Jan 1991; the 5.76GHz one appeared a few years later. The design concept was based on an article in Microwaves and RF, July 1987.

UK MICROWAVE EVENTS2010

Visit [www.microwavers.org/events.htm](http://www.microwavers.org/events.htm) for your 2010 microwave Diary/Dates

GREMLINS!

Last month's Scatterpoint contained a few errors ...

The RSGB Convention at Wyboston was NOT and HF Convention ... in fact is covered the microwave bands as ell as LF and HF. Colin, G3PSM, writes " It's a bit of a cultural shock I know but I guess people will get used to it! "

The front page Contents should read:  
" MODIFYING THE DB6NT 12GHz LO FOR 10.224GHz"

Proposal IARU R1 C5 (VHF Committee): 2010 – UBAIntroducing a Rover class in the UHF/SHF and μwave contests

Background

During the contests there is relatively less activity on these bands and so there are not so many squares activated. To give a new boost to these contests we are proposing the installation of a Rover class, for the band 1.2GHz and higher.

Proposal:

The installation of a new "Rover" class during the UHF/SHF and μwave contests (1.2 GHz and above). A Rover station is a station travelling to more than one grid location during the same contest. Rover stations use "Rover" or "/R" as suffix with the same callsign. A Rover station can be worked more than once, on the condition that the rover has changed from locator square, this means a change of the 4 first digits (eg. from JO32.. to JO31..). The final score of the Rover station is the sum of the logs per square. A Rover station makes a specific EDI file for each locator. The sum of the different logs will be the final result of the rover station.

Remark:

The UBA will install for its national championship a Rover Class for the bands 1.2 GHz and higher. This can be used as a test case for the IARU R1. The contest program "WinOnContest" will support this new class in 2010.

## CORNWALL NOW ON 24GHz ....

### G4ALY HAS GOOD NEWS FOR MILLIMETRE WAVE OPERATORS

For information, I am now QRV on 24GHz using an Alcatel White Box system. It's giving between 300-500mW and the RX has approx 2dB noise figure. The antenna is a 30dB gain cassegrain fed dish. I intend to just use it for /P use to start with so. Anyone passing through Devon and/or Cornwall could expect a contact on that band, dependent on weather and conditions of course.

If possible, I would like to place the system on one of the masts but that will not be until next summer. I have a convenient portable site 4-5km north of me: Kit Hill in IO70UM, 315m asl.

**Skeds:** please email me at:  
**Ralph.Bird@btinternet.com**  
giving me reasonable notice.

**73 from Ralph G4ALY**

## The 3400 MHz Band and Ofcom

Some readers in the UK will be aware there is pressure to release much of the 3400 MHz (9cm) band in the UK for future 4G use by LTE or Wimax. This has long been expected and a response to Ofcom's consultation on this has been lodged and is at:

[http://www.ofcom.org.uk/consult/condocs/3\\_4ghz/](http://www.ofcom.org.uk/consult/condocs/3_4ghz/)

One problem that YOU can help with RIGHT NOW is to ensure that activity and construction on this band is highlighted on the web and ensure it is found by others who may Google us. So a few requests:-

a) Please include frequencies and well as wavelengths on your own websites (ie 3400 MHz and 3.4GHz not just 9cm) and if you have gear on the band - show it and examples of ranges or contacts

b) Please, please, please include a link on your own website to the central UKuG page for this band at <http://www.microwavers.org/3400mhz.htm>

Note that we must have b) to ensure Google ranks it top when Ofcom and Mobile industry people do searches on us.

If you have some good stuff on your own webpages I will be pleased to add it to the amateur links listing on that UKuG page.

**73 ... Murray, G6JYB, RSGB Microwave Manager**

## BEACON NEWS ... from Murray, G6JYB

During November Ofcom approved the following two new **10GHz beacons**:

**GB3NGI** 10368.895MHz Slieveanorra near Ballymena

**GB3MCB** 10368.980MHz St Austell, Cornwall

Meanwhile the IARU-R1 database updates include deletions of the former beacons:

**GB3SWH** Watford on 10368.240MHz

**GB3ALD** Alderney on 10120.00MHz

**GB3NWK** Orpington on 1296.810 and 2320.850MHz

Useful links:-

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

<http://www.microwavers.org/vetting.htm> - Current Vetting Status

<http://data.dcc.rsgb.org/> - IARU-R1 VHF Beacon Database

In February 2010 IARU-R1 will have its interim meeting where RSGB papers on Beacon Keying/ Messages and the move of Region-1 6m Beacons to 50.4-50.5MHz will be discussed

## OFCOM RELEASE SPECTRUM PLAN FOR 2012 OLYMPICS ...

From: [radiospectrum-bounces@lists.ofcom.org.uk](mailto:radiospectrum-bounces@lists.ofcom.org.uk)

Sent: 19 October 2009

Ofcom has today published its Spectrum Plan for the London 2012 Olympic Games, outlining how the airwaves will be managed during the seven week event. The statement can be found at:

<http://www.ofcom.org.uk/consult/condocs/london2012/statement/>

**RSGB Spectrum Manager, G6JYB,**  
comments:

It is pleasing to note in the detailed Q&A that Inputs from RSGB and RAYNET are noted against several issues where amateur bands are potentially needed and we await further discussions on this, which are part of an ongoing liaison process with Ofcom.

It is well worth looking at that detail in the Ofcom statement as it also covers management of exempt devices, monitoring/enforcement, WLAN congestion, PMR channel preferences, etc.

# UK MICROWAVE GROUP CONTEST RESULTS 2009

## 5.7GHz Cumulatives 2009

It is good to see increasing numbers of entries for this event, with the total number of QSOs made holding fairly steady. There was little of note on the propagation front this year, with no long distance rain-scan contacts in the logs. PA/ON7BV/P provided many entrants with their best DX from his seaside location on the Dutch coast.

Congratulations to **Jim Gale G4WYJ/P**, who takes the **G3KEU Trophy**, and to **runner-up Keith Winnard operating as GW3TKH/P** and **G3TKH/P** who receives a certificate. Leading fixed station David Millard M0GHZ will also receive a certificate, as will G8CUB/P and G8AIM who operated with Radio talkback only.

## 10 GHz Cumulatives 2009

A further increase in entries was apparent this year, up from 12 last year to 17. Some new callsigns have appeared in the logs this year, with notably increased activity from Northern England over the past couple of years.

Conditions this year were rather unexceptional, with just a handful of rain scatter contacts made. Well sited stations made good distances in spite of this, with PA/ON7BV/P providing good DX for many.

In the Open section Peter Horbaczewskij **G4ZXO/P (Ditchling Beacon)** returned to winning ways with a clear lead over **runner-up Peter Day G3PHO/P** who operated from a number of sites in Northern England. Congratulations to G4ZXO/P, who will receive the G3RPE Memorial Trophy, and to G3PHO/P who will receive the runners-up certificate.

Steve Cooke **G1MPW/P** and David Banks **G6KIE/P** operating from Ashdown Forest once again repeated their **leading positions in the Restricted section**. The G3JMB Memorial Trophy goes to G1MPW/P and the runners up certificate to G6KIE/P.

**Nick Peckett G4KUX** receives a certificate as a first time entrant, best single session entry, and leading fixed station in the Open section, getting going on the band in time for the last session and then recording the best DX overall. David Millard M0GHZ receives a certificate as the leading fixed station in the Restricted section. George Tarver G8AIM receives a certificate as first time entrant and best single session entry in the Restricted Section. Roger Ray G8CUB/P and Dave Ackrill G0DJA/P receive a certificate for Radio only talkback.

## 24GHz GORRJ Cumulatives 2009

An impressive increase in entries was a highlight, going up from 3 last year to 8 this time. Some 15 stations were active during the contest this year, again a significant increase, but the activity is very concentrated in the South of the country at present. The best DX recorded this year was 118km between GW3TKH/P and G4NNS/P.

**Roger Ray G8CUB/P** took full advantage of the Rover rules to operate from multiple sites, usually including Therfield near Cambridge and then another site further south east. This paid off well, and he wins the event this year **from runner-up Peter Horbaczewskij G4ZXO/P** who operated from Ditchling Beacon for all the sessions. John Worsnop **G4BAO** receives a certificate for the leading fixed station entry, and Keith Winnard **GW3TKH/P** as the best single session entry.

## 24GHz Trophy Cumulatives 2009

Last year this series of three events was for 47 and 76GHz only, and no entries were received. Following requests from some operators to re-instate 24GHz, it reverted to a three band event this year. Only two entries were received, from G(W)3ZME/P and G3PHO/P, and 5 different stations appeared in their logs. The **winner was G(W)3ZME/P** operating from Brown Clee, Long Mountain, and Long Mynd. Telford & DARS win the 24GHz Trophy, and **Peter Day G3PHO/P will receive a certificate**. No entries were received for 47/76GHz again this year.

The rules for this event will be re-visited before next year to see if more participation can be encouraged, particularly in the South of the UK.

**John G3XDY UKuG Contest Adjudicator**

## 5.7GHz Cumulatives 2009

Pos	Callsign	Overall Score	Total QSOs	Score Session #1	Score Session #2	Score Session #3	Score Session #4	Score Session #5	Mults	Best DX	km
1	<b>G4WYJ/P</b>	66396	44	1892	1343	1018	2162	2207	11	G3PHO/P	340
2	G(W)3TKH/P	41980	30	1201	371	0	2194	803	10	PA/ON7BV/P	450
3	G3PHO/P	41940	25	564	1982	1077	0	1135	10	G4ALY	453
4	G3ZME/P	27990	19	0	637	0	0	2473	9	PA/ON7BV/P	428
5	M0GHZ	25240	20	662	191	0	1532	330	10	PA/ON7BV/P	393
6	G4NNS	20188	30	660	325	789	522	1435	7	PA/ON7BV/P	350
7	G8AIM	13111	12	0	0	0	1275	598	7	PA/ON7BV/P	355
8	G8CUB/P	5895	11	490	343	0	346	0	5	GW3TKH/P	236

## 10GHz Cumulatives 2009

### Open Section

Pos	Callsign	Overall Score	Total QSOs	Score Session #1	Score Session #2	Score Session #3	Score Session #4	Score Session #5	Mults	Best DX	km
1	<b>G4ZXO/P</b>	206388	92	3157	2957	2528	2679	5352	18	G4KUX	433
2	G3PHO/P	148638	75	3449	4237	2931	0	2920	14	G4ALY	453
3	M0DTS/P	133016	58	1842	2513	521	3670	4049	13	PA/ON7BV/P	435
4	G3ZME/P	64500	35	2435	0	0	0	2940	12	G3XDY	264
5	G4KUX	36680	14	0	0	0	0	3668	10	F6DWG/P	642
6	G4NNS	34440	50	770	849	1745	850	1688	10	F6DKW	385
7	G0DJAP	418	3	0	209	0	0	0	2	M0DTS/P	147

### Restricted Section

1	<b>G1MPW/P</b>	153460	66	2080	2493	1044	2734	2446	20	F1NPX/P	401
2	G6KIE/P	134406	62	1460	2172	895	2734	2168	19	F1NPX/P	401
3	G4WYJ/P	99840	74	2486	1288	2194	2290	2904	13	G3PHO/P	340
4	G(W)3CWI/P	91680	57	2866	3590	0	0	1184	12	G4ZXO/P	316
5	G(W)3TKH/P	84019	42	1455	362	0	2844	2164	13	PA/ON7BV/P	450
6	G0EHV/P	72479	35	412	1925	1489	0	3175	11	PA/ON7BV/P	435
7	M0GHZ	47268	28	1089	191	0	1928	922	12	PA/ON7BV/P	393
8	G8CUB/P	42603	41	1218	1289	0	506	1366	11	F9ZG/P	395
9	G4BAO	10346	14	66	574	0	0	838	7	F6DWG/P	345
10	G8AIM	3120	5	0	0	0	0	780	4	M0DTS/P	229

## 24GHz G0RRJ Trophy Cumulative Results 2009

This series of five contests is run in parallel with the 5.7 and 10GHz cumulatives

Pos	Callsign	Overall Score	Total QSOs	Score Session #1	Score Session #2	Score Session #3	Score Session #4	Score Session #5	Mults	Best DX	km
1	<b>G8CUB/P</b>	1352	10	90	109	0	20	139	4	G4EAT	56
2	G4ZXO/P	1146	12	66	24	198	118	0	3	G4EAT	106
3	G4NNS/(P)	792	6	118	14	0	101	45	3	GW3TKH/P	118
4	G1MPW/P	484	7	61	12	13	12	53	4	G8CUB/P	51
5	GW3TKH/P	404	2	202	0	0	0	0	2	G4NNS/P	118
6	G0JMI/P	198	3	0	0	0	99	0	2	G4NNS	37
7	G4BAO	99	3	33	33	0	0	33	1	G8CUB/P	33
8	G6KIE/P	74	4	12	12	13	0	0	2	G4ZXO/P	12

# 24/47/76GHz Trophy Cumulative Results 2009

This series of three contests is run on separate days from the GORRJ series.

Pos	Callsign	Overall Score	Total QSOs	Score Session #1	Session #2	Session #3	Mults	Best DX	km
1	G(W)3ZME/P	897	5	85	214	0	3	G3PHO/P	92
2	G3PHO/P	244	3	0	244	0	1	GW3ZME/P	92
47GHz: No entries									
76GHz: No entries									



Above:  
G4ZXO/P & G4WYJ/P on Ditchling Beacon, IO90WV, in 2006 with 5.7, 10 and 24GHz



Above:  
G8VZT/P with 24GHz on Merryton Low, IO93AD, in 2005



Right:  
G3PHO/P at Alport IO93FF with 24 and 47GHz roving, Sept 2006





# ACTIVITY NEWS FROM THE WORLD ABOVE 1000MHz

By Robin Lucas, G8APZ

This combined November/December issue sees some reports of good conditions on the bands for a change but not as many as I would have liked.

I'm unable to fill my allocated four pages this time, for the first time since I took on this column over two years ago! I've been lucky with material during the past six months, where I've sometimes had enough for five pages and, even then, had to reduce the font size. I suppose it was inevitable that my luck would run out at some point!

The Martlesham Round Table was another very enjoyable one and a good set of talks had been arranged. I always look forward to this one but it will be April 2010 before the first of next year's events at RAL over the weekend 17th-18th of April. The same format as in previous years is likely, with the Saturday antenna test range at G4NNS, and the evening dinner on 17th, followed by the RAL event on the Sunday.

There are just a few activity days and contests left this year, so do take advantage of them.

## CONTEST and ACTIVITY REMINDER

### December

**6-Dec** 0900-2000: Low band 1.3/2.3/3.4GHz

**15-Dec** 2000-2230: 1.3/2.3GHz Activity Contest  
Arranged by VHFCC (RSGB Contest)

**27-Dec** 0900-2000: All-band Activity Day  
Non competitive

## F6DKW 3cm QSO TO ITALY

On 25th October, Maurice, **F6DKW** near Paris (JN18CS) had a very good contact on **3cm** with Roberto, **IK2OFO** in Milan (JN45NK) over the Alps using aircraft scatter, at a distance of 642km.

Reports of 519 on CW were exchanged, over what looks like an impossible path! Maurice had been hoping to work Italy for the past 20 years, and has finally made it!

Roberto's equipment consists of a **DB6NT** transverter with a preamp (a pair of NE354), and 25W output into a 1.5m dish. His antennas are on top of a high apartment building, so he has an excellent takeoff.

Given a distance of 950km from my QTH in Essex, the aircraft scatter mode is not an option, but during a widespread tropo lift, who knows? There are quite a few stations who may be able to cover the distance, so I don't think that I would rule out the possibility!

## SPAIN ON 23cm

On 18th October, Brian Pickrell, **G8ARM** (IO70GD) in Penzance worked **EA1TO/1** (IN83FD) on 70cm, at 55 SSB both ways. He asked for **23cm** and luckily the **EA** station was QRV. A CW contact followed at 529 both ways over the 902km path.

Brian was very surprised, but says the Hepburn prediction that day was spot on. The lift seemed to last only a few hours, and no other activity was found.

## ZL to VK 23cm microwave activity DX report:

Steve ZL1TPH <stephen\_hayman@xtra.co.nz> reports some excellent 23cm DX on the 20th November this year when he worked Ross VK2DVZ 5/2 in QF68GD on 1296.2MHz @ 2096 km. He also bagged Mark VK2AMS 5/2 in QF68FC on 1296.2MHz @ 2100 km. Nick ZL1IU also worked Ross VK2DVZ 5/1 on 1296.1MHz @ 2007 km. Well done the Kiwis and Aussies!

## OCTOBER TROPO OPENING

**From: John Wood, G4EAT, JO01hr**

October started as a poor month for tropo with less than average conditions in the 3/4th October IARU contest. Leading up to 27th October, high pressure had started to form over France, and the Hepburn map was predicting several days of tropo to the south.

Ralph, **G4ALY** called in the morning to say he was hearing very strong French beacons and



Hepburn showed a strong duct to his doorstep (but not mine) so the forecast was accurate.

During the morning, **F1XBC/b 23cm** (JN06JG, 607km) started to grow in strength and I worked **HB9AMH/p** (JN37, 700km) on **23cm**. During the afternoon **3cm** conditions improved and I worked **HB9AMH/p**. Guy **F2CT** was out portable in JN05. I immediately heard his signals via many aircraft reflections as we completed quickly for a new square on **3cm** (#76). **23cm** beacons **F1ZTF** (IN95), **F5XBF** (IN94) were also heard in the afternoon.

Early on 28th Joel, **F6FHP** (IN94, 782km) was very strong on **23cm** and **13cm**, but very little activity. In the evening I worked **F6CIS** (IN94), then **F6AQI** (IN96) and **F1MOZ** (IN93) 889km for 2 new squares.

Activity on 29th was quiet, but the **F1XBC** beacon was still strong. Worked on **23cm** **F6CBC** and **F6FHP** both in IN94.

On 30th the high pressure was about to move east, so from previous experience, I was expecting/hoping for some **3cm** improvements. In mid afternoon, the **HB9EME 23cm** beacon was 599 so I checked for **HB9G** on **3cm** (JN36 711km) which was 549 for about an hour. At this time, stations in the Paris area were hearing beacons **GB3SCX** and **GB3CCX** at 599 on **3cm**.

During the evening I heard the **F5XAY** beacon (JN06, 627km) for the first time but only managed one **3cm** QSO with **F1BZG** (JN07). Tests with **F6DRO** failed as the tropo did not make the additional 300km to his QTH. In the meantime, beacons **F1XBC** on **23cm** and **F5ZMF** on **13cm** grew stronger on any heading as the ducting took hold.

I have not heard it this good to France in the last 10 years. Unfortunately, all the conditions had gone by Saturday morning (31st).

---

Ralph, **G4ALY** (IO70) caught the opening too, and worked some very good DX in France.

On 27th, **3cm** contacts were made with **F5BUU** SSB (870km), **F6DRO** (903km), **F6APE** 435km (also worked on **6cm** and **13cm**), whilst on **13cm**, **F6FHP** near Bordeaux was worked at 701km, and even better, **F6DRO** at 903km. Both the latter stations were on SSB.

On 29th, **23cm** produced QSOs with **F6DKW** SSB (500km), **F1RJ** SSB (486km), and **F6CBC**

(676km).

The 30th continued to produce good **3cm** distances, with all of the following on SSB. **F6DKW** 59 (500km), **F6APE** (435km), **F1TBP** (407km), and **F5NXU** (387km). More SSB QSOs were made on **6cm** with **F6APE** (435km), and **F1TBP** (407km). **23cm** produced **F1PYR** (494km), **F6AQI** (434km), **F1NUM** (232km) and **F1TBP** (407km).

The final throes of the opening produced a contact on 31st Oct on **23cm** with **F6FHP** at 701km.

Ralph also continues to run successful daily skeds with **G3LRP**(399km) on **3cm** and **6cm** and **F9OE**(247km) on **3cm**. On 18th October he had a full duplex QSO with **F9OE 23/3cm** at 59 SSB both ways.

**From: Nick Peckett, G4KUX (IO94BP)**

Not too much to report this month apart from the **3cm** contacts with Marc **F6DWG/p** and Maurice **F6DKW** on the 30th October around 1700gmt.

Contact started with a 'KST arranged test with Marc who was worked with slightly better than normal sigs at 529/559. Maurice arranged to call me immediately after this sked so I was listening for him when I noticed a huge signal appear on the IC756 spectrum display and thought it must be breakthrough from a local 2m station getting into the IF feed. You can imagine my surprise when I tuned into the carrier and found it was Maurice at 59+40. We had around a 15min QSO at "armchair copy levels" ..... amazing!

I then went on to work him on **23cm**, where the signals were not quite as strong, just 59. The contact with **F6DKW** was 711km and gives me great hopes of breaking the 1000km barrier soon and maybe setting a new UK distance record at sometime in the future.

Because of the breakthrough problems from using a 2m IF (consequences of my high site) I am very likely to begin using 70cm as an IF instead of 2m. I just need a crystal change and re-tweaking of the multiplier stages in the **DB6NT** transverter.

## OCTOBER ACTIVITY CONTEST

The **23cm** session on 20th October produced some rather variable conditions. Ray, **GM4CXM**

noted some oddities.

A normally workable (though difficult) path to Jim **GM3UAG** produced nothing, and John **GM4LBV** was a lower signal than usual too. Tony **GW8ASD** and John **G3XDY**, were also down on normal!

Brian **G8DKK** was his usual good signal and so was John **G4BAO** running 30w but with a few exceptions, everyone else appeared "up on usual".

**OZ1FF** was pounding in at 559 via tropo, and was worked at a distance of 782km, but there were no other **OZs** heard. Strangely, Alan **GM0USI/p** in IO76XA, whose location was 200m higher than Ray and with a superb take off to the east, was able to copy very little from **OZ1FF**, presumably due to being above the duct.

Although sixteen stations were worked, with five of them in excess of 500km, Ray was down on square multipliers, with six normally active squares being conspicuous by their absence.

## BEACONS

Keith Holland, **G3MCD** reports that **GB3MCB** on **1296.860MHz** is QRV again from the new mast. The locator, beam heading, power etc., all remain the same, since the new mast is adjacent to the old mast.

Since the beacon was first installed, crystal aging has caused an LF drift, and currently, it seems to be about 9KHz low in frequency.

The Mid Cornwall group cannot control the china clay workings around their site and they believe that the clay waste mountain (which is in a north easterly direction and getting taller) may affect signals. They would be interested in reports, which may be sent via DXC spots.

**GB3SCS** has had a refurbishment, resulting in a moderate increase in power from 1W to 3W, together with GPS frequency locking, and the addition of the **JT4G** mode to the keying cycle.

The complete beacon message format now consists of **JT4G** sent in even minutes, which takes about 48 seconds, followed immediately by callsign and locator. CW data is repeated on the odd minute, odd minute plus 30 seconds, and at all other times the beacon sends plain carrier on the **JT4G** lowest tone frequency of **2320.905MHz**.

Hans, **DK2MN** informs us that all beacons in

the **DK2MN** cluster on every bands from **23cm** to **24GHz** are off the air at present. No other information available, but hopefully we will see these return in due course.

French beacons have a callsign in which the number is 1 or 5, depending on the licence class of the beaconkeeper, and the first letter of the suffix is either **X** or **Z**.

The old **FX** prefix is still in use on several beacons (the 2m beacon **FX3THF** is actually licensed as **F5XSJ** but the keyer has not been changed!). Personal beacons operating within the beacon bands use the keeper's own call.

This system is changing, and callsigns will in future have the **F** prefix and will contain **Z** as the first letter after the number. Quite a few have already changed, but no date is given for the change to be complete.

## BEACONSPOT.EU

If a beacon changes callsign, beacon spotters quite often keep spotting it under the old call. In this type of situation, Beaconspot.eu will automatically amend the beacon callsign on an incoming DXC spot where the old call has been spotted. This only applies to beacons where a callsign change has occurred.

Where possible, common typos (such as **10386** instead of **10368** or **HB6EME** instead of **HB9EME**), are corrected by software. Other errors and typos will continue to be corrected manually whenever these are detected.

## ...AND FINALLY

No more material means a shorter column than usual this time. It may reflect the (mainly) dire conditions we have had of late but there isn't much we can do about that.

Activity in the winter months always seems to be less than in the summer but, even when there were some good conditions at the end of October, there was a noticeable shortage of stations taking advantage of them.

Activity in the week after Christmas can be quite good, so do have a look on the bands!

**73, Robin, G8APZ**

Please send your activity news for this column to:

**scatterpoint@microwavers.org**

# THE CASE FOR PORTABLE AND ROVER OPERATION ON THE 24GHz & 47GHz BANDS

... by Peter G3PHO

(Thanks to Robin. G8APZ, for the opportunity to use his spare pages!)

First and foremost, I must state that this article if written by me as a member of UKuG only and does not represent the views of the UKuG Committee! I was hoping to air this stuff at the Martlesham Round Table where we normally have an Open Forum on the Sunday afternoon but this year the Forum never materialized and I left feeling quite disappointed that a debate on this subject had not come to the fore ....

Sadly, I've seen both these bands wax and wane like the Moon over recent years. There was a time, not so long ago, when there were 35 UK micro-wavers with working 24GHz narrowband gear and sometimes more than half of them would come on the air for the three or for 24GHz/47GHz cumulative Sundays. Not everyone worked everyone else of course but some interesting days resulted from the good activity. Most of them were portable operators and quite a few drove to locations from which interesting contacts could be made. Indeed there were at least two or three groups of keen millimetre band ops who, outside contest weekends, would do 'expeditions' to relatively remote parts of the British Isles such as Ireland, South West Scotland and the West Coast of Wales. Some fine uW DX contacts, including long distance ATV ones, were made on both 24GHz and 47GHz.

During the 24-47-76GHz contests, which were run in parallel on the same Sundays, a number of people tried moving their location ("roving") during the day. I once tried five different sites during one Sunday! This involved around 180 miles of driving but it was worth it as one could repeat the contacts made from the previous sites provided a linear distance of 10 miles separated them. This way a respectable contest score could be made and everyone benefited from the chance of making QSOs over new paths.

To be an efficient rover and thus maximise ones contest score, all the gear has to be highly portable. You need to set up in 5 minutes and take down in



the same or less time. A drive to the next location would see one or two contacts made with the same stations as before and perhaps others who were not workable from the previous location. **This is really good FUN!**

In fact roving is a major form of microwave contest operation in the USA and was one reason why, in my former days as microwave contest manager, I introduced the rover rule to our contests. I'm delighted it remains in the rules to this day but am saddened that so few people make use of it.

Some of you operate 24GHz only from home. Well done you lucky people who have a home location good enough! However, the majority of us are not so fortunate and need to go portable on the millimetre bands to maximise contact distances. Indeed, my own home location is extremely poor for microwaving if numbers of QSOs in a day are important, as they are in contests. For that reason I've been going portable since the first week I got interested in microwaves back in 1970. I've had a load of fun (and also a few disappointing times) doing so for nearly four decades.

After a decline in portable operating I'm pleased to see a good number of you coming out on the hills again but many are coming out with a different approach than in years gone by.

On looking at this year's UKuG Contest results, it seems that the majority of the dwindling number of millimetre wave operators are now setting up their 24GHz gear alongside their 10 and 5.7GHz stations for the newly formed triband cumulatives (5.7/10/24GHz) **BUT the old 24/47GHz contests seem to have been ignored by most of you this year.... why?**

Having three bands or even 2 bands out portable is not all that conducive to efficient rover operating unless one has made a special effort to keep the size of the gear down. As a result most of you appear to never change location and even use the same site one month after month.

In my case, once set up, it is impossible to move site during the 3 and 6cm contests as my contest

station for these bands is BIG, as you can see at [www.g3pho.org.uk](http://www.g3pho.org.uk). As a solo, portable operator, I can't cope with three separate sets of gear and dishes (in addition to the 2m station and laptop)

Some of you still reading this might suggest I sacrifice one of the three bands in order to make it easier to cope with 24GHz on the 10 and 5.7GHz days. No thanks... that would reduce my chances in the contest on the discarded band. You might also suggest I downsize my 10 and 5.7GHz gear from lots of watts to a four foot dish to a mere 250 milliwatts and an 18 inch PW dish and throw away my potent 2m talkback station in favour of KST only .... that would also reduced my chances in the contests so, no thanks again! It's taken me many years to get to the level of being able to work France over 600km paths on a fairly regular basis on 3 and 6cm so I don't want to go back to scratching for someone just 250km away with a QRP microwave station.

Those who have operated portable 24GHz alongside 10 and 5.7GHz this year have, apart from one station I believe, stayed on one site all day and have used the same site for most, if not all, of the five contest Sundays. As a result they have reinvented the wheel each time by largely working the same old paths and operators they worked before. To some extent this is also happening on the lower bands such as 10GHz. After 30 odd years of microwave contesting I find this not only pointless but boring. What is the point of working G9XYZ over the same 120km path every month if you are not entering the contest? You don't need his kilometre points like the contesteer might. You are not pushing the boundaries and achieving something new.

**These contest days need something to spice up the proceedings and get more folk to send in logs. Does anyone have any suggestions?**

I've never regarded our UKuG Contests as mere activity days where you come on the air just to make a few contacts and not take part in the competition. You could do that anytime. Like it or not, I have a competitive streak in me and I enjoy contesting, both on my own and in club teams, on all bands from 160 metres upwards, often for 24 hours or more at a time. I like to do well in contests (and try to win them) since a lot of prior effort is put in to do so. If our so-called microwave contests are not intended for died-in-the-wool contesters like myself but are only there primarily to generate activity, then why cannot we call them **activity days** and remove the need to swap serial numbers and the like? I would still support them of course and maybe even enjoy the freedom of not having to take out a competitive station for a change!

However, while ever they are still called contests, I have to rise to the competitive challenge.

This year's rule changes have, in my view, unwittingly contributed to the decline of rover operation and to the demise of the 47GHz band. While the changes have been well supported and a good number of operators (all in the South!) have submitted 24GHz logs for the triband cumulative contests, the original 24/47GHz contests have been decimated! Only myself and G3ZME have entered logs and I believe only he, myself and three others have been active for most of those Sundays. Where were the rest of those 35 operational stations I mentioned earlier? Where were the many folk who bought the 90 half watt 24GHz RF amplifiers I got for them some years ago? When are all these Alcatel transverters going to be heard on 24.048GHz?

**PLEASE SUPPORT THE OLD 24/47GHz CONTESTS IN 2010... in addition to the new triband cumulatives ... if only to encourage roving and the 47GHz band.**

Up here in the Northern half of England, we have very little millimetre band activity as it is and so, to make interesting contacts, we need the co-operation of those of you people in Southern and South Eastern areas. Martyn G3UKV, Dave G8VZT and myself have often driven long distances to get to sites that offer long range QSOs (ie 100-200km) on these bands only to find that the rest of you have only driven to your local Southern hilltop from where contacts to us are nigh on impossible without a major "lift" in conditions. A few years ago, the likes of G8KQW and G4KNZ would drive 100 miles or more from "Darn Sowf" to link the South with the North on 24 and 47GHz but, sadly, no one has come along to replace these stalwart operators of yesteryear!

"But you guys in the North have a better choice of portable sites than us down here", I hear you say.... Maybe that's true for an all day location but you southerners have roadside grass verges, parking areas and laybys in large quantities just like we have. They are ideal for quick stops on a rover route. Go out there and do a reconnaissance for them! Yes, we also have tall hedges in the way up here in IO93/IO94 as vegetation can still thrive up in the North you know!

Nothing is impossible if you try. You are not too old for portable either ... I'm older than 95% of you!

I hope to hear many more of you on 24GHz & 47GHz from the hills of Wales or Scotland or Lincolnshire next year, so get building this winter !  
**73 from Peter G3PHO**