



# scatterpoint

November/December 2018

Published by the UK Microwave Group

Bell Hill with the new 47GHz beacon  
on the pole in the foreground (the  
box at the top of the pole)

See Activity News



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**UKμG WIKI <https://wiki.microwavers.org.uk/>**

## 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

<https://groups.io/g/Scatterpoint/files> and/or Dropbox. Also, **free access to the Chip Bank**.

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](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!)

## Articles for Scatterpoint

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

Please send them to

[editor@microwavers.org](mailto: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 Project support

The UK Microwave Group is pleased to encourage and support microwave projects such as Beacons, Synthesiser development, etc. Collectively UKuG 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 UKuG Secretary, after which they are reviewed/agreed by the committee

[www.microwavers.org/proj-support.htm](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 UKuG there are a number of people who are prepared to (within sensible limits!) share their knowledge and, what is more important, 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](mailto:john@g4bao.com)

The current list is available at

[www.microwavers.org/tech-support.htm](http://www.microwavers.org/tech-support.htm)

**New Tech support needed in Wales as Chris (now G4DGU) has moved to Cornwall but has volunteered to be TS Elmer for Devon & Cornwall**

## UKμG Chip Bank – A free service for members

**By Mike Scott, G3LYP**

Non members can join the UKuG 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, that is, Jiffy bags, small plastic bags for individual component values, and Large letter 2nd class postage, currently 76p.

Minimum quantity of small components supplied is 10.

The service may be withdrawn at the discretion of the committee if abuse such as reselling of components is suspected. We have asked Mike to

check with the Chairman (or designated officer) if any individual is making excessive requests, and we will ensure that the service is only available to members.

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 mislabelled.

The catalogue is on the UKμG web site at [www.microwavers.org/chipbank.htm](http://www.microwavers.org/chipbank.htm)

# Chairman's Thoughts

**Sam Jewell G4DDK**

On behalf of all your Committee, we wish a very Merry Christmas and a Happy New Year to all our UKuG readers.

With the successful launch of the Falcon 9 rocket, carrying the Qatari owned Es'Hail-2 geosynchronous satellite payload and its amateur radio 10GHz transponder, it looks like we will have a great facility to use in the New Year. First, the Mitsubishi built satellite must pass the commissioning stage before moving into the final orbit location at 26 degrees east. This will take a month or two, from the information that has been released by Amsat DL and Amsat UK. As of the end of November, all is looking good.

Whilst we patiently wait many satellite enthusiasts have been busy getting their satellite systems ready to use. A lot of time and effort has been expended by group members sorting out their 10.450GHz downlink arrangements. At present the preferred downlink system seems to be an Octagon PLL LNB with 80cm -1.2m diameter offset dish, giving a UHF IF for either the narrowband 'DX' or wideband digital TV transponder. Leaving aside the choice of wide or narrowband, what IF receiver to use as well as what 2.4GHz transmitter to use, let's take a closer look at some LNB issues that have recently been identified

A single IF output OSLO PLL LNB or dual IF output OTSLO PLL LNB costs under £20 on Amazon or EBAY. However, it has become apparent that there are two versions of these. One with a 27MHz reference crystal oscillator, and one with a 25MHz crystal reference. In principle either reference crystal can be used, but you need to know which it is if you intend to use an external, high stability, reference. An external reference is preferred for stability, especially for narrowband. Details of how to modify your LNB appears in the BATV CQ-TV magazine and (possibly by now) in Scatterpoint. In the short term it is not necessary to modify the LNB,

but you may quickly become impatient to improve stability.

The problems come when you particularly want to order one or other of the crystal references as the barcode on the LNB box seems to be the same for both LNBs (?). The only way to be reasonably sure which it is is to check the four digit number on the LNB itself. This is located next to the CE mark on the LNB cover. A code of 1609 has (so far, from the ones I know of) a 25MHz reference and 13xx (either 01 or 06) a 27MHz reference. I don't know if this is a definite foolproof way to know the reference without opening the LNB!

Whether it is a 25 or 27MHz, if you choose not to use an external reference, the IF will be the same due to the LNB PLL producing a 9750MHz local oscillator in the PLL chip. Note that this is if you run the LNB at less than 15V on the coax lead. Above 15V the Internal PLL reference changes to 10.600GHz to cover the higher DTV satellite allocation.

A further problem appears to be associated with the diameter of the LNB waveguide input from the horn antenna feeding the vertical or horizontal polarisation probe. It appears to be close to waveguide cut off at 10450MHz, resulting in a higher loss and hence noise figure than desirable. What to do about this, if anything, seems to be the main topic of discussion at present. Once the Es'Hail-2 satellite commissioning is complete and the transponder's amateur beacon is turned on we will know whether this is a real problem or whether the satellite transponder noise floor will be so high that it limits the receiver sensitivity. Watch this space!

**Sam, G4DDK, Chairman, UKuG**

## From the Editor

Next month's edition will be a joint December/January issue.

Neil & I look forward to your inputs! Tales of new toys from Santa, perhaps?

**73s de Martin G8BHC**



## Changed Your Email Address?

If you have changed your email address in the last 18 months and not informed the UKuG membership secretary of the change please would you notify me of your new address to [membership@microwavers.org](mailto:membership@microwavers.org). Thank you to those that have emailed and informed me of a change, your membership records are up to date. I have a few members whose email addresses are either bouncing or producing no reply and I am unable to inform you of upcoming membership renewal. Overdue renewals result in deletion from the membership database and from [groups.io/Scatterpoint](https://groups.io/Scatterpoint).

**Bryan, G8DKK, Membership secretary, UKuG**

**..and while we're on the subject...**

## ukmicrowaves @ groups.io

People are joining this group with some very anonymous looking email addresses and names - some downright suspicious. Can I repeat if you have an amateur radio callsign, please use it in your user name or ident so you can be verified.

Joiners with suspect addresses / user names will remain moderated until proven otherwise. The group is now getting big enough to attract spammers.

**Andy Talbot [www.g4jnt.com](http://www.g4jnt.com) Group owner**

## GMRT 2018 Report

**Prepared by Martin Hall GM8IEM and Brian Flynn GM8BJF.**



The eighth Scottish Microwave Round Table (GMRT) was held on Saturday 3 November 2018 at the Museum of Communication (MOC), Burntisland. Thirty-four participants attended the event during the day.

The MOC opened its doors at 9:30 AM, and it was soon full of life as stalls were set up and early arrivals chatted over welcome cups of coffee and tea, eager to make the most of the day. Time to chat is an important feature of the leisurely programme of the GMRTs, and as in previous years plenty of time was allocated for this purpose between presentations. Throughout the day participants also made good use of the test and measurement facilities provided by Brian Flynn GM8BJF and David Stockton GM4ZNX. They were in the museum display area as usual, along with the tables occupied by traders.

The presentations started at 10:30 AM with a welcome to the venue by Professor Tom Stevenson from the MOC. Martin Hall GM8IEM, the UK Microwave Group (UkuG) Scottish representative, then welcomed the participants and acted as chair for the rest of the proceedings.

Following on from his presentation last year David Anderson GM6BIG provided an update on the 3cm beacon construction project, which is now nearing completion – “3 cm Beacon Update”. He described some of the practical aspects of achieving the high technical specification required for the environment in which it will be installed, and how problems identified during testing had been overcome. The beacon itself was available for inspection and attracted much attention at the end of the talk.

After a short break Gordon Curry G16ATZ provided a well-illustrated presentation on the “NI Beacon

Cluster" (GB3NGI), which is located on an exposed site 500 metres above sea level atop Slieve Anorra Mountain in County Antrim, Northern Ireland (IO65VB). After a description of the early beacon equipment, Gordon moved on to tell us about the build and implementation of the current set-up, which is based on the Next Generation Beacon hardware. What came over clearly was the difficulty of keeping the beacons operating in such a hostile and inaccessible environment, so well done the team that keeps them going! For operational details see <https://www.qsl.net/gb3ngi/index.html>

Whilst lunch was being set up in the conference room, attendees assembled in the museum where the entries for the GM4LBV Projects Trophy were displayed. The usual excellent buffet lunch (included in the entrance fee) was provided by the MOC volunteers.

The afternoon session kicked off with a fascinating talk by John Cooke GM8OTI entitled "Deep Space Project" in which he described his interest in monitoring telemetry from distant spacecraft. John likes the challenge of building minimum cost systems, and his home-brew rotator for a small dish for tracking spacecraft showed his ingenuity at its best and provided a stimulus to the audience to explore similar innovative approaches in their own projects.

This was immediately followed by a short talk by Andy Sinclair MM0FMF "13 cm SOTA Update", in which he described various activations of summits during the last year, all co-ordinated via [gm13@groups.io](mailto:gm13@groups.io), which has continued to flourish during the year and has provided a focal point for 13cm activity in the north of the UK.

After a short break we had a departure from the normal format when James Gentle GM4WZP, supported by Andy Sinclair MM0FMF, conducted a brainstorming session under the title "Crowd Design of a 13cm Portable Aerial". This was to meet their objective of developing a 13cm antenna which was suitable for SOTA and highly reproducible at low cost, to complement the widely used SG Labs 13cm transverter. This evolved into a lively discussion about the merits of different options and resulted in some very useful information to form the basis for proceeding with the project, as well as helping those merely listening to understand the pros and cons of a range of solutions.

During the afternoon break Brian Flynn GM8BJF and David Stockton GM4ZNX judged the entries for the GM4LBV Projects Trophy, and the trophy was

now presented to the winner Peter Howson GM8GAX (Alloa) for his reflectometer for 70 cm, 23 cm & 13 cm.

There was then a brief discussion about the future of GMRT events, during which there was widespread support for the event to continue on an annual basis, and it was agreed that we should hold the ninth GMRT on Saturday 2 November 2019 - put the date in your diaries now!

As in previous years the museum volunteers had kept us well supplied with tea, coffee, biscuits and scones (plain and jam!) throughout the day, as well as providing a splendid buffet lunch. Andy Sinclair MM0FMF thanked them for their efforts, and each was awarded a gift to a round of applause from the appreciative audience.

During the course of the day those present provided updates to the Directory of Scottish Microwave Activity, which also includes stations in nearby areas that can reasonably be worked from GM. This is intended as a reference for those considering who they might be able to work on the microwave bands (especially when upgrading their stations), and the latest issue will be made available via the UkuG group, gm13 group, and GMDX Digest.

Many attendees (and some YL/XYLs) moved on to the Kingswood Hotel in the evening for further chat and an excellent meal, followed by an auction of microwave related publications and hardware which raised money for MOC funds. We missed the entertainment provided in previous years by the "Microwave Band", several of whose members were unable to attend this year, but this was made up for by technical discussions and social chit-chat which continued well into the evening, providing an opportunity to get to know our fellow enthusiasts better.

At the dinner the organising committee were thanked for their hard work in making the 2018 GMRT yet another success, and those gathered drank a toast to them. The "organising committee" (Roger Blackwell GM4PMK, John Cooke GM8OTI, Brian Flynn GM8BJF, David Stockton GM4ZNX, Colin Wright GM4HWO and Ian White GM3SEK.) thanks the MOC volunteers for all their efforts before and during the event, and Lothians RS members Peter Dick GM4DTH, Andy Sinclair MM0FMF and Alan Masson GM3PSP for local support.

21-Nov-18 Prepared by Martin Hall GM8IEM and Brian Flynn GM8BJF.

## Directory of Microwave Activity in Scotland and Nearby

Call	1296 MHz	2300 MHz 2320 MHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz
G0EHV/P	Active /P	Active /P			Active /P	
G3ZWR/P	Active	Soon				
G4KUX	Active	Soon			Active	
G8KPD	Active /P	Active /P				
G8PNN	Active	Active				
GD6ICR	Active	Soon			Soon	
GI6ATZ	Active					
GM0AXY		?				
GM0FMW	Active					
GM0ICF	Active				?	
GM0ONN	Active /P	Active /P			Active /P	
GM0UHC		Active	?			
GM0USI (/P)	Active	Active	Active	Active	Active	Active
GM1CNH	Apr '18					
GM3HAM (/P)	Active	Active	Active	Active	Active	Active
GM3SBC	Active	Active				
GM3SEK	Inactive					
GM3UAG	Active	Active				
GM3UCI					?	
GM3WIL	Active /P	Active /P				
GM4BYF	Active	Active	Active		Active	Active
GM4COX		Active /P Home '18				
GM4CXM	Inactive	Inactive				
GM4DIJ (/A)	Active	Active			2018	
GM4FZH	Active					
GM4GUF (/P)	Active	Active			Active	
GM4ILS	2018	2018			2018	
GM4ISM*		Active /P	Active /P	Active /P	Active	Active /P
GM4JR	Inactive					
GM4JTJ	Active	Active	Active			
GM4PMK	Active					
GM4TOE	Active	Mainly /P		2019	/P only	
GM4VKI	Active	Active				
GM4YLN	Active	Active			Active	
GM4YPL	Active					
GM4ZUK (/P)	Active					
GM6CMQ	Active	Active				
GM6VXB	Active	2018			2018	
GM7GDE	Active	Active				
GM7OIN	Active					
GM7PKT		?				
GM8BJF	Active	Active		Active	Active	Active
GM8GAX	2019				2019	
GM8IEM	Active	Active			2019	



Call	1296 MHz	2300 MHz 2320 MHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz
GM8MJV	Active	Active			Soon	
GM8OTI	Active /P	Active /P	2022	2020	Active /P	2020
MM0FMF	Active FM only	Active				
MM0GLM		Active				
MM0XPZ		?				
MM0GYX	Active					
MM3WJZ		?				
* Also 47 GHz /P on request			v1.6 25-Nov-	Updates to Martin Hall GM8IEM martinhall@gorrell.co.uk		

GDPR Statement: Information contained in this directory has been supplied by the amateurs concerned, or has been obtained from public domain sources such as the cluster (via DX Summit), RSGB VHF CC website, or gm13 Yahoo Group; it contains no personal information such as name, address, or contact details. Anyone who wishes to amend or remove their listing from this directory should make the request to GM8IEM.

## Free ATV event

### Heather M0HMO

Over the weekend of 8th/9th Dec. we are holding a free ATV event aimed at getting more people on air with Amateur TV. We would also like to invite anyone doing (lower bands) microwave projects and in need of a hand with testing/soldering etc.

We will kick off at 10am on Saturday 8th December with some general discussions on ATV/Microwaves etc then dive in for a full day of workshops and Clinics. Bring your Portdown / Minitiouner / 5.6GHz Drone transceiver / Es'Hail 2 transceiver or anything else ATV/SHF oriented and we will be on hand with suitable soldering and test equipment to help you finish your project, get it configured, set up and working.

There will be a two course sit down lunch option on Saturday at reasonable cost (10 pounds) so that you don't have to take too much time out of the fun and games with soldering irons and electricravery. If there is enough interest we will all head over to a local pub for a relaxed dinner on Saturday evening.

On Sunday 9th December we will try to get as many people on air as possible. We will head on up to Brown Clee and attempt some decent DX ATV QSOs. You can try out your newly finished kit and maybe borrow the bits you still haven't got working so that you can get on air.

Venue: Eaton Manor Country Estate, Eaton-under-Heywood, Church Stretton, Shropshire. SY6 7DH, phone 01694 724 814. If you need accommodation phone the Eaton Manor office for a good deal on rooms/cottages for the night/weekend etc.

Please contact Heather Lomond on [heather@myorangedragon.com](mailto:heather@myorangedragon.com) or 07802 548 938 to book a place.

## All EME 2018 videos are available on the CAMRAS website:

See: <https://www.camras.nl/en/blog/2018/eme-2018-conference-report/>

## Yahoo Microwaves

To anyone still monitoring the Yahoo Microwaves group – If you haven't signed up at groupsio yet, go to <https://groups.io/g/UKMicrowaves> and join. It's as simple as that.

All files have been transferred to the new Group and posting to the Yahoo group has been turned-off.

Andy Talbot [www.g4jnt.com](http://www.g4jnt.com) – microwaves @ groups.io owner

# Contest results

**John Quarmby G3XDY, UKuG Contest Manager**

As we approach the end of the 2018 contest season, I would be pleased to hear from members about any changes they would like to see for 2019 prior to setting the rules for next year in December. I don't have any major changes planned but I await your feedback.

73

**John G3XDY**

**UKuG Contest Manager**

## September 5.7GHz Contest 2018

I'm afraid the low activity over the summer months continued for this event too. Congratulations to the winners, the Telford & DARS G3ZME/P.

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	G3ZME/P	IO82QL	4	762	G3XDY	265
2	G3VKV	IO81XV	1	77	G3ZME/P	77

## September 10GHz Contest 2018

Despite flat conditions activity was reasonably good for this session. Some good rainscatter was in evidence, but also some absorption effects. Congratulations go to Graham G8HAJ as winner and to the Telford & DARS G3ZME/P as runner up in the Open section, and to Barry G4SJH/P as winner of the restricted section.

Open Section						
Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	G8HAJ	JO01JR	18	3856	G4KUX	370
2	G3ZME/P	IO82QL	19	3312	F6DKW	535
3	G4KUX	IO94BP	11	3020	G6TRM/P	446
4	G6TRM/P	JO01QD	11	2688	G3UVR	390
5	G4DBN	IO93NR	11	2289	G4ALY	428
6	G4ASR	IO81MX	14	2162	G6TRM/P	314
7	G3UVR	IO83KH	6	1351	G6TRM/P	390
8	G3VKV	IO81XV	7	426	G4CBW	131
9	G3YJR	IO93FJ	4	423	G4KUX	141
10	M0XIG/P	IO91JB	5	282	M0EYT/P	80
Restricted Section						
Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	G4SJH/P	IO91GI	20	2663	F6DKW	389
2	2E0MDJ/P	IO81XW	13	1653	G6TRM/P	253
3	G0LGS/P	IO81XW	12	1576	G6TRM/P	253

## September mm-Wave Contest Results

Most entrants reported this session as having average conditions, with fair weather for most.

Congratulations go to the winners and runners up as follows:

24GHz Winner: Roger G8CUB/P Runner-Up: Barry G4SJH/P  
47GHz Joint Winners: Neil G4LDR/P and John G8ACE/P  
76GHz Joint Winners: John G8ACE/P and Neil G4LDR/P

### 24 GHz

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	G8CUB/P	IO91CL	4	297	G0FDZ/P	146
2	G4SJH/P	IO91GI	7	283	G4LDR/P	55
3	G4LDR/P	IO91JB	3	154	G8CUB/P	62
4	G3ZME/P	IO82QL	2	146	G3VKV	77
5	G8ACE/P	IO91JA	3	101	G4SJH/P	41
6	G1DFL/P	IO91NM	2	90	G4SJH/P	45

### 47GHz

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1=	G4LDR/P	IO90MX	1	19	G8ACE/P	19
1=	G8ACE/P	IO91JA	1	19	G4LDR/P	19

### 76GHz

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1=	G4LDR/P	IO90MX	1	19	G8ACE/P	19
1=	G8ACE/P	IO91JA	1	19	G4LDR/P	19

## October mm-Wave Contest Results

Lower than average humidity and good weather made for better propagation than usual on 24GHz and easy contacts on some of the higher bands too. Several stations roved between two or more locations adding to the interest and QSO totals.

Congratulations go to the winners and runners up as follows:

24GHz Winner: Neil G4LDR/P Runner-Up: Roger G8CUB/P  
47GHz Winner: Keith GW3TKH/P Runner-Up: Roger G8CUB/P  
76GHz Winner: Neil G4LDR/P Runner-Up: Roger G8CUB/P

### 24GHz

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	G4LDR/P	IO91CL	10	634	G8AQA/P	142
2	G8CUB/P	IO81WU	9	629	G4LDR/P	96
3	G3ZME/P	IO82QL	7	593	G8CUB/P	127
4	GW3TKH/P	IO81LS	5	402	G4SJH/P	119
5	G1EHF/P	IO91KF	10	326	G8CUB/P	48
6	G4SJH/P	IO91GI	7	207	GW3TKH/P	119
7	G8AQA/P	IO82NN	2	162	G4LDR/P	142
8	G1DFL/P	IO91NM	1	37	G1EHF/P	37

## 47GHz

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	GW3TKH/P	IO81LS	3	259	G8CUB/P	102
2	G8CUB/P	IO81WU	3	230	GW3TKH/P	64
3	G4LDR/P	IO91CL	2	186	GW3TKH/P	93

## 76GHz

Pos	Callsign	Locator	QSOs	Score	ODX Call	ODX km
1	G4LDR/P	IO91CL	3	213	GW3TKH/P	93
2	G8CUB/P	IO81WU	3	201	G8GTZ/P	73
3	GW3TKH/P	IO81LS	2	157	G4LDR/P	93

## Highband Championships 2018

### 5.7GHz

The entry level this year has been very disappointing – please let's see some more activity on this band which is under threat from the expansion of WiFi.

The winner this year is Neil G4LDR who entered four sessions, won two of them and placed second in the others. Runner up was the Telford & District Amateur Radio Society G3ZME/P who entered and won two sessions. Neil will receive the G3KEQ Memorial Trophy.

### 10GHz

In the Restricted Section Barry Lewis G4SJH/P won the two sessions he entered. Runner up was Matt G0LGS/P who won the second session and was runner up in the fifth event. The leading fixed station was Ken G3YKI.

In the Open Section there was a close battle between Graham G8HAJ and Nick G4KUX, with Graham running out the eventual winner with two session wins and two second place slots. Nick won two of the four sessions he entered. The leading portable station was G3ZME/P

The G3JMB Trophy goes to Barry Lewis G4SJH/P, and the G3RPE Memorial Trophy goes to Graham G8HAJ. Congratulations to all those mentioned.

## 5.7/10GHz Championship Tables

Final positions after five events, the best three count to the total

### 5.7GHz

Pos	Callsign	27-May-18	24-Jun-18	29-Jul-18	26-Aug-18	30-Sep-18	TOTAL
1	G4LDR	330	824	1000	1000		2824
2	G3ZME/P		1000			1000	2000
3	G1EHF/P	1000					1000
4	GW3TKH/P		779				779
5	M0GHZ				613		613
6=	2E0MDJ/P		204				204
6=	G0LGS/P		204				204
8	G1DFL/P	65	138				203
9=	M0ICR/P		138				138
9=	M0UGA/P		138				138
11	G3VKV					101	101

### 10GHz Open

Pos	Callsign	27-May-18	24-Jun-18	29-Jul-18	26-Aug-18	30-Sep-18	TOTAL
1	G8HAJ	298	872	1000	947	1000	2947
2	G4KUX	1000	588		1000	783	2783
3	G4LDR	876	612	215	580		2068
4	G4DBN		559		831	594	1984
5	G3ZME/P		1000			859	1859
6	G3UVR	353	298	129	220	350	1001
7	G3PHO		355		396		751
8	G6TRM/P					697	697
9	G3VKV	208			309	110	627
10	G3YJR	289	164	138		110	591
11	GW3TKH/P		574				574
12	G4ASR					561	561
13	M0GHZ				442		442
14	M0XIG/P				56	73	129

### 10GHz Restricted

Pos	Callsign	27-May-18	24-Jun-18	29-Jul-18	26-Aug-18	30-Sep-18	TOTAL
1=	G4SJH/P	1000				1000	2000
1=	2E0MDJ/P		1000			621	1621
1=	G0LGS/P		1000			592	1592
4	G3YKI				1000		1000
5	G1DFL/P	86	453		15		554
6	G3WJG		282				282
7	M0ICR/P		135				135
8	M0UGA/P		121				121



## mm-Wave Championship 2018

Entry levels for the 2018 Championship stayed broadly at the same level as in 2017. The October session saw the best conditions with lower humidity helping reduce path losses. This year saw probably the first instance of fixed station operation on 76GHz from G4LDR.

The winner on 24GHz and recipient of the G0RRJ Memorial Trophy is Roger G8CUB/P, repeating his success of 2017. Runner up is Neil G4LDR who operated both from home and out portable. Several stations made good use of the rover rules to boost their scores.

On 47GHz Neil G4LDR leads the field, again with a mix of home station and portable operation, with Keith GW3TKH/P in the runner up spot. G4LDR therefore wins the 47GHz Trophy.

This year's winner on 76GHz is Keith GW3TKH/P with some fine contacts. Roger G8CUB/P is the runner up on this band.

It is expected that next year's contest programme will broadly follow the same format, but that the contest exchange will be 8 character locators to permit more accurate determination of distances.

## 24/47/76GHz Championship Tables 2018

### 24GHz

Pos	Callsign	20-May-18	10-Jun-18	16-Sep-18	21-Oct-18	TOTAL
1	G8CUB/P	889	139	1000	992	2881
2	G4LDR(/P)	244	1000	519	1000	2519
3	GW3TKH/P	1000	578	0	634	2212
4	G4SJH/P	423	661	953	383	2037
5	G3ZME/P	0	0	492	935	1427
6	G1EHF/P	0	697	0	514	1211
7	GW4HQX/P	0	578	0	0	578
8	G1DFL/P	0	0	303	58	361
9	G8ACE/P	0	0	340	0	340
10	G8AQA/P	0	0	0	256	256

### 47GHz

Pos	Callsign	20-May-18	10-Jun-18	16-Sep-18	21-Oct-18	TOTAL
1	G4LDR(/P)	161	1000	1000	718	2718
2	GW3TKH/P	500	780	0	1000	2280
3	G8CUB/P	1000	220	0	888	2108
4	G8ACE/P	0	0	1000	0	1000
5	GW4HQX/P	0	780	0	0	780

### 76GHz

Pos	Callsign	20-May-18	10-Jun-18	16-Sep-18	21-Oct-18	TOTAL
1	GW3TKH/P	1000	1000	0	737	2737
2	G8CUB/P	667	904	0	944	2515
3	G4LDR(/P)	108	0	1000	1000	2108
4	G8ACE/P	0	115	1000	0	1115
5	G4HQX/P	0	1000	0	0	1000

# UKuG Microwave Contests - 2019

**John Quarmby G3XDY, Contest Manager**

## Aims and comments:

There are a few minor changes to the rules from 2018.

The entry submission time will be 1 week after the contest (in line with RSGB and other contests), this should make for more timely adjudication.

In the mm-wave events the locator details exchanged should be 8 character (eg JO02OB57) to allow more accurate determination of distances.

The low band event dates will be similar to last year, with the March, May and June sessions running on IARU coordinated dates. Stations wishing to take part on 2300MHz are reminded that they must be in possession of the relevant Notice of Variation, and to take part on 2320MHz that they must register their station with Ofcom by emailing [pssramateurs@ofcom.org.uk](mailto:pssramateurs@ofcom.org.uk) to provide the following information:

1. Name
2. Address
3. Call sign
4. Location of use
5. Frequency range used
6. Type of use
7. Regularity of use (e.g. evenings and weekends; 24/7; occasional)
8. Transmit power (ie. EIRP) .

The high band events will continue on 5.7 and 10GHz only, the dates will continue to be on the last Sunday of May, June, July, August and September. The sessions will run between 0600 to 1800 UTC, with operators able to choose any 8 hour slot (or two slots with at least a 1 hour gap). As in previous years the overall table and trophies will be determined using the best three scores made by each station across the five events. The high band events will coincide with the French *Journée d'activité* dates.

The millimetre events will continue as last year, they will comprise the all band event in June covering 24GHz – 248GHz, and 24/47/76GHz events in May, September and October. The 24GHz trophy will be awarded for the June event, the 24GHz scores from the best three of the four events will count towards an overall score for the G0RRJ Memorial Trophy, and the best three session scores on 47GHz will determine the award of the 47GHz Trophy. The 76GHz events will contribute to the 76GHz championship where the best three session scores will count to the total.

Microwavers outside the UK are most welcome to join in our contests. There is already a core of French, Dutch and Belgian stations that appear regularly in our summer contests. We would like many more to do the same!

## THE RULES listed below are final and binding for 2019.

The following contests are scheduled for 2019:

Low Microwave Bands - 1.3GHz/2.30GHz/2.32GHz/3.4GHz (5 contest days). An overall championship will be decided on the best three scores out of five.

- 5.7GHz (5 contest days with 3 to count for the championship), on the same days as the 10GHz contests.
- 10GHz (5 contest days with 3 to count for the championship), on the same days as the 5.7GHz contests.
- 24GHz G0RRJ Memorial Trophy Contests (4 contest days with 3 to count for the championship).
- 24GHz Trophy awarded to the leading station on 24GHz in the 24GHz -248GHz event in June.
- 47GHz (4 contest days with 3 to count for the championship)
- 76GHz (4 contest days with 3 to count for the championship)

The full contest program and rules are published in the January 2019 issue of the Scatterpoint Microwave Newsletter and are also available on the Internet on the UKuG website at <http://www.microwavers.org>

## General Rules (applicable to all events)

The Contests are open to all comers (you do not have to be an RSGB or UK Microwave Group member). Stations located outside the UK (G, GW, GM, GI, GD, GU, GJ) may enter a contest, and will be tabulated within the overall results tables, but will not be eligible for UK Microwave Group awards.

Contestants are expected to enter in the true spirit of the event and to adhere strictly to any equipment or power restrictions that apply to the particular contest.

Operators may enter as home station or portable (either mixed or separately in the championships) unless specified in the rules for a specific event. In multi-band contests, single-band entries are always acceptable.

- Stations:** Entrants must not change their location or callsign during the contest, unless the Rover rule is invoked. In multi-band events, all stations forming one entry must be located within a circle of 1000m radius. An operator may reside outside the station's area ("remote station"), connected to the station via a "remote control terminal". In such a case, the Locator for the contest is the Locator of the station's position. An operator may only operate one single station, regardless if it is locally or remotely operated, during the same event.
- Contacts:** Only one scoring contact may be made with a given station on each band, regardless of suffix (/P, /M, etc) during an individual contest or cumulative activity period, unless the station worked is a Rover when each QSO from a different location may be counted. When operating as a Rover, a maximum of one scoring QSO can be made with any given station from each location visited. Contacts made using repeaters or satellites will not count for points. Contacts with callsigns appearing as operators on any of the cover sheets forming an entry will not count for points or multipliers.
- Scoring:** Contacts are scored on the basis of 1 point per kilometre (rounded up to the nearest kilometre) for full, two-way microwave contacts and at half points for one-way (ie crossband) contacts. Any contacts made by EME are scored at 1 point per kilometer up to 1000km, and will be scored at 1000 points above that distance.
- Exchanges:** Contest exchanges on the microwave bands consist of RS(T) + serial number (starting at 001). In addition, the six (or eight) figure QTH Locator must be exchanged either via the microwave band or on the talkback medium. In multiband contests, the serial number will start at 001 for each band (ie a common sequence across the bands is NOT to be used). No points will be lost if a non-competing station cannot provide an IARU locator, serial number, or any other information that may be required. However, the receiving operator must receive and record sufficient information to be able to calculate the score.
- Talkback:** Talkback can be used to assist in setting up a QSO, but note that the contest exchange must be made via the microwave band. It is not permissible to use the talkback as a means of checking the report or serial number – they must be copied via microwaves – and after the QSO is complete, care should be taken to avoid accidentally repeating the exchange via talkback. There is no restriction on the talkback methods that can be used – other amateur band, internet, phone, etc. In setting up the QSO, it is also permissible to send back received audio to the other station, for example to help with antenna alignment. An exception is that our contests do allow one way (cross-band) QSOs for half points, and in this case, the other band can be used by one of the stations.
- Entries:** Contestants are asked to make sure their entries have been scored correctly and that all relevant bonus points and multipliers have been claimed.

Log entries must be submitted via the online log portal at <http://microwave.rsgbcc.org/cgi-bin/vhfenter.pl>. When uploading electronic logs, the format should be one of the following: ASCII text, RSGB Standard Format, Cabrillo, SDV and G0GJV log outputs, and IARU REG1TEST format (preferred). Paper logs may be entered using the online log editor at <http://microwave.rsgbcc.org/cgi-bin/cover.pl>. Entries must be submitted no later than 7 days after the conclusion of the contest session.

Awards:	Certificates will be awarded to overall contest winners and individual section leaders and their runners up. Additional Certificates of Merit will be awarded to stations in certain categories, as indicated in the rules for each event. With these, as with the logs, the adjudicator's decision is final.
Special Rules:	Applicable if called up for the specific contest:
Rover Concept:	The 'Rover' concept is to encourage lightweight, low power portable activity. This allows the location of the station to be moved as many times as desired and by a minimum of 5 linear kilometres, at any time during the contest period. From each new location, stations worked from any of the previous locations during the event may be worked again, both stations involved in the contact gaining points. The serial number, however, will not revert to 001 each time a move is made but will carry on consecutively from the previous contact.

## Low Band Microwave Contest Rules

First introduced in 2004, these contests aim to encourage operation on the lower microwave bands, particularly as there is growing UK availability of 2.3GHz and 3.4GHz equipment. There are five of these events, in March, April, May, June, and November. The March, May and June events are timed to overlap with UHF/SHF events in some other IARU Region 1 countries. The times for the November event are shortened to make portable operation more practical.

1. The General Rules listed above apply except as modified by these rules.
2. There are five contests, one each in March, April, May, June and November. The March, April and June events run from 1000 to 1600 UTC. The May event runs from 0800 to 1400 UTC to coincide with the RSGB UHF Contest. The November event is from 1000 to 1400 UTC.
3. Entrants in the May event need not start serial numbers from 001 if they are also participating in the RSGB UHF Contest.
4. Operation may take place on the following bands: 1240-1325MHz, 2300 – 2302MHz, 2310 – 2350MHz, 3400 – 3410MHz. The same station may be contacted for points on each of the four bands.
5. Each event will be scored and tabulated separately. There is an annual championship determined by taking the best three normalized scores from each entrant across the five events for each band. The overall champion will be declared based on the normalized championship scores from each band.
6. For each session, certificates will be awarded to the leading entry plus runner-up on each band, the overall leading entry and runner-up across the three bands, plus for each band the leading stations in each of the following categories: home station, portable station, station running less than 10 watts output. Championship certificates will be awarded to the winners and runners up for each band, and to the overall championship winner and runner-up.

## 5.7GHz Contest Rules

The 5.7GHz and 10GHz contests are being run concurrently to grow activity on 5.7GHz. Although they are on the same days, they are completely separate contests. Any band or both bands can be used on any of the 5 days.

1. The general rules shown above apply.
2. There are five, monthly, events from May to September inclusive, and the events run from 0600 to 1800 UTC on a Sunday. Entrants can operate for a period of up to eight hours during each event, either as a single period or two separate periods with a minimum off time of 1 hour between.
3. Moving location during the contest is allowed - the Rover concept is applicable.
4. Certificates will be awarded to the leading station and runner-up, and to the leading fixed, portable and low power (<1W) stations.
5. The G3KEU Memorial Trophy will be awarded to the leading entry in the championship, determined from the best three normalized scores during the series of events.

## 10GHz Contest Rules

The 5.7GHz and 10GHz contests are being run concurrently to grow activity on 5.7GHz. Although they are on the same days, they are completely separate contests. Any band or both bands can be used on any of the 5 days.

1. The general rules shown above apply.
2. There are five, monthly, events from May to September inclusive, and the events run from 0600 to 1800 UTC on a Sunday. Entrants can operate for a period of up to eight hours during each event, either as a single period or two separate periods with a minimum off time of 1 hour between.
3. Contestants may submit logs for any one of the following sections:

### Open

- i. No power or antenna restrictions (other than those laid down in the amateur licence).
- ii. The 'Rover' concept does not apply to this section.

### Restricted

- iii. 10GHz transmit output not to exceed 1.0 watt to the antenna.
  - iv. Moving location during the contest is allowed - the Rover concept is applicable.
4. Certificates will be awarded to the leading station and runner-up in each section, and to the leading portable and fixed stations.
  5. The 10GHz championship will be determined based on the best three normalized scores from each entrant over the five sessions. In addition to winners and runners-up certificates for each section, the following certificates/trophies will be awarded:
    - Leading entry in the Open section - The G3RPE Memorial Trophy
    - Leading entry in the Restricted section - The G3JMB Memorial Trophy
    - Certificates to the leading home station and portable station in each section.

## 24GHz G0RRJ Contest Rules

The 24GHz G0RRJ Contest will take place over four sessions, coincident with 47GHz events and also the all millimeter wave event in June.

1. The general rules shown above apply.
2. There are four events from June to October inclusive, and the events run from 0900 to 1700 UTC on a Sunday.
3. Moving location during the contest is allowed - the Rover concept is applicable.
4. Certificates will be awarded to the leading station and runner-up in each section, plus the leading home and portable stations.
5. The G0RRJ Memorial Trophy will be awarded to the leading entry in the championship, determined from the best three normalized scores during the series of events.

## 24GHz Trophy Rules

The 24GHz Trophy contest coincides with the 47GHz/76GHz and 122GHz - 248GHz events

1. The general rules shown above apply.
2. The contest will run from 0900 to 1700 UTC on a Sunday.
3. Moving location during the contest is allowed - the Rover concept is applicable.
4. Certificates will be awarded to the leading station and runner-up, and the winner will receive the 24GHz Trophy.

## 47GHz Contest Rules

The 47GHz contest will take place over four sessions, coincident with 24GHz/76GHz events and also the all millimeter wave event in June.

1. The General Rules listed above apply.
2. The contest will run from 0900 to 1700 UTC on a Sunday.
3. Moving location during the contest is allowed - the Rover concept is applicable.
4. Certificates will be awarded to the leading station and runner-up.
5. The 47GHz Trophy will be awarded to the leading entry in the championship, determined from the best three normalized scores during the series of events.



## 76GHz Contest Rules

The 76GHz contest will take place over four sessions, coincident with 24GHz/47GHz events and also the all millimeter wave event in June.

1. The General Rules listed above apply.
2. The contest will run from 0900 to 1700 UTC on a Sunday.
3. Moving location during the contest is allowed - the Rover concept is applicable.
4. Certificates will be awarded to the leading station and runner-up.
5. A certificate will be awarded to the leading entry in the championship, determined from the best three normalized scores during the series of events.

## 122GHz – 248GHz Contest Rules

The 122GHz – 248GHz contest coincides with the 24GHz Trophy, and 47GHz event in June

1. The General Rules listed above apply.
2. The contest will run from 0900 to 1700 UTC on a Sunday.
3. Moving location during the contest is allowed - the Rover concept is applicable.
4. The overall score will be determined by adding together the normalized scores from all bands entered.
5. Certificates will be awarded to the leading station and runner-up on each band and overall.

## Other Microwave Contests

The first weekend of May sees the RSGB 432MHz -248GHz Multiband Contest staged in parallel with the RSGB UHF/SHF Contest. The 10GHz Trophy is run in parallel by the RSGB VHF Contest Committee on the Saturday of that weekend, and the rules can be found in the RSGB VHF contest rules.

BATC run the UK section of the IARU ATV contest on the second weekend in June, plus other ATV events, see [http://www.batc.org.uk/contests/contest\\_news.html](http://www.batc.org.uk/contests/contest_news.html)

The first weekend in July is RSGB VHF National Field Day which includes 1.3GHz as one of the bands.

The first weekend of October sees the RSGB 432MHz -248GHz Multiband Contest staged in parallel with the Region 1 IARU UHF/SHF Contest. The 1.3GHz Trophy and the 2.3GHz Trophy are run in parallel by the RSGB VHF Contest Committee on the Saturday, and the rules can also be found in the RSGB VHF contest rules.

The RSGB also runs a cumulative UK Activity Contest on 1.3GHz on the third Tuesday from 2000-2230 local time, and on 2.3GHz – 10GHz on the fourth Tuesday of every month, from 1930 – 2230 local time (subject to some variations in timing on 2.3GHz).

In addition there are other Continental UHF/SHF Contests held during the year and interested UK microwavers are urged to be active during these. Their details may be found on the Internet.

# UKμG Microwave Contest Calendar 2019

Dates 2019	Time UTC	Contest name	Certificates
3-Mar	1000 - 1600	1st Low band 1.3/2.3/3.4GHz	F, P,L
7-Apr	1000 - 1600	2nd Low band 1.3/2.3/3.4GHz	F, P,L
5-May	0800 - 1400	3rd Low band 1.3/2.3/3.4GHz	F, P,L
19-May	0900 – 1700	1st 24GHz Contest	
19-May	0900 – 1700	1st 47GHz Contest	
19-May	0900 – 1700	1st 76GHz Contest	
26-May	0600 - 1800	1st 5.7GHz Contest	F, P,L
26-May	0600 - 1800	1st 10GHz Contest	F, P,L
2-Jun	1000 - 1600	4th Low band 1.3/2.3/3.4GHz	F, P,L
16-Jun	0900 - 1700	24/47GHz Trophy / 76/122-248 GHz	
30-Jun	0600 - 1800	2nd 5.7GHz Contest	F, P,L
30-Jun	0600 - 1800	2nd 10GHz Contest	F, P,L
28-Jul	0600 - 1800	3rd 5.7GHz Contest	F, P,L
28-Jul	0600 - 1800	3rd 10GHz Contest	F, P,L
25-Aug	0600 - 1800	4th 5.7GHz Contest	F, P,L
25-Aug	0600 - 1800	4th 10GHz Contest	F, P,L
15-Sep	0900 - 1700	3rd 24GHz Contest	
15-Sep	0900 - 1700	3rd 47GHz Contest	
15-Sep	0900 – 1700	3rd 76GHz Contest	
29-Sep	0600 - 1800	5th 5.7GHz Contest	F, P,L
29-Sep	0600 - 1800	5th 10GHz Contest	F, P,L
20-Oct	0900 - 1700	4th 24GHz Contest	
20-Oct	0900 - 1700	4th 47GHz Contest	
17-Nov	1000 - 1400	5th Low band 1.3/2.3/3.4GHz	F, P,L

Key: F Fixed / home station P Portable  
L Low-power (<10W on 1.3-3.4GHz, <1W on 5.7/10GHz)

## French microwave activity for 2019

Ralph G4ALY

TBC

## 80m UK Microwavers net

Tuesdays 08:30 local on 3626 kHz (+/- QRM)

73 Martyn Vincent G3UKV



# Activity News : October 2018

By Neil Underwood G4LDR

***Please send your activity news to:***

[scatterpoint@microwavers.org](mailto:scatterpoint@microwavers.org)

## Introduction

There were some spells of good tropo propagation during the latter part of October with reports of long paths being worked on 6cm FMTV and 3cm DATV. Unfortunately I was not able to be active during the good conditions.

With the last of the UKuW contests having taken place for the year and having experienced (in common with others) the worse conditions ever during the RSGB UKAC 1296MHz contest on the 19th November we have to hope we get some more enhanced conditions during the coming months. We must not forget that with the lower absolute humidity levels during the winter months, we can take advantage of reduced path loss on the mmWave bands to increase our own distance records on these bands.

## Band Report

**From Dave, G1EHF, IO91**

For the first time I decided to have a go at roving during the final 24GHz session. I coordinated with Barry G4SJH, so we would always be at different locations during the event. I started at Farleigh Wallop ear Basingstoke in IO91KF42, then moved to Cheesefoot Head near Winchester in IO91JB01 and ended up on Walbury Hill near Newbury in IO91GI25. I managed 10 contacts with six different stations, although the second one with Brian G4NNS was dubious due to my wandering LO and poor CW! The highlight was almost working Martyn G3ZME/P from Cheesefoot at 171km but unfortunately sig's faded before we could complete. It was good to enjoy the reasonable activity and fine weather for late October.

**From Neil G4LDR/P, IO91.**

The last of the mmWave band contests (24, 47 and 76GHz) took place on Sunday 21st October and for once coincided with enhance conditions, at least during the first few hours.

I started off at Hackpen Hill near Marlborough Wiltshire (IO91CL). I worked GW3TKH/P and GW4HQX/P on the Bloreng, Gwent on all three bands including 76GHz for the first time. Signal levels were extremely strong on 24 and 47GHz but only 59(!) on 76GHz over the 93km line of sight path. G3ZME/P on Brown Clee Shropshire was also an easy contact on 24GHz. I then worked my best ever inter-G DX of 142km on 24GHz to GAQA/P also in Shropshire. Hackpen to Walbury Hill, Berkshire is usually a difficult path as the operating location at Hackpen is slightly below the summit (on the side away from Walbury). On this occasion I worked G4SJH/P by beaming directly into the back of my car.

During the afternoon I set up near Stockbridge, Hampshire where I increased the number of contacts to 11 on 24GHz. On 76GHz I had one more contact, although an attempt with G8GTZ/P on DATV over a 20km path did not go.

## Beacon News

**From Neil G4LDR IO91**

On Wednesday 7th November I installed the second new 47GHz beacon GB3SCQ at Bell Hill, Dorset after the 'original' replacement suffered instability issues believed to be due to the RF environment at Bell Hill, (it had worked fine at both my QTH and John's QTH (G8ACE); who built it). The beacon which transmits about 60mW uses a small horn antenna beaming at approximately 75o. It sends 'GB3SCQ IO80UU P0.' The 'P0' indicates the output power is nominal.



Bell Hill with the new 47GHz beacon on the pole in the foreground (the box at the top of the pole).

During installation John, G8ACE/P was at Cheesefoot Head, Winchester and immediately received the beacon at good strength over the 75km non-line of sight path.

I have also been able to copy the beacon whilst driving between Bell Hill and my QTH near Salisbury, but only on the hill tops! I used my 47GHz transverter with open waveguide inside the car, I recorded the RF output from an SDR receiver connected to the transverter for off-line analysis, the Doppler shift at 47GHz is quite considerable and moves the received signal out of a CW or USB passband whilst travelling at up to 60mph

**From Chris, G8BKE, IO80**

I made a pilgrimage to Deadmans Hill in the New Forest on the 8th November - IO90DW - LoS to Bell Hill.

The beacon is very easy to find at that location. The old one (2006 version) used to be about S5 on the same set-up but this one is well into the red sector of the S meter whatever that means in terms of dB's. So well done to all concerned. It is an easy copy well off beam and is copyable to on open guide although not registering on the S meter. I couldn't detect any backscatter for those who are into reflections. (!)

I made several short videos all too big to post here so have put one on YouTube at :-

<https://youtu.be/53A0LkIfGY4>

(A few days later Chris went to the southern part of the New Forest where the beacon was just detectable although the location was about 25° off the main beam heading.)

**.....and finally**

The deadline for activity reports to be included in the next issue is Saturday 1st December 2018.

# Events calendar

## 2019

Jan 19	Heelweg	<a href="http://www.pamicrowaves.nl/">www.pamicrowaves.nl/</a>
Feb 16	GHz-Tagung 2019 in Dorsten	<a href="http://www.ghz-tagung.de/">www.ghz-tagung.de/</a>
March 15	IET Colloquium on Millimetre-wave and Terahertz Engineering & Technology 2019	<a href="http://www.theiet.org/events/2019/248017.cfm">www.theiet.org/events/2019/248017.cfm</a>
	RSGB AGM	
April 13	CJ-2019, Seigy	<a href="http://cj.r-e-f.org/">http://cj.r-e-f.org/</a>
April 13–14	Martlesham Microwave Round Table	<a href="http://mmrt.homedns.org/">http://mmrt.homedns.org/</a>
April 26/28	IARU Region-1 Interim Meeting, Vienna	
April 27	RSGB AGM, Birmingham	<a href="http://rsgb.org/agm">http://rsgb.org/agm</a>
May 17–19	Hamvention, Dayton	<a href="http://www.hamvention.org/">www.hamvention.org/</a>
June 21–23	Ham Radio, Friedrichshafen	<a href="http://www.hamradio-friedrichshafen.de/">www.hamradio-friedrichshafen.de/</a>
Sept 6–8	64.UKW Tagung Weinheim	<a href="http://www.ukw-tagung.de/">http://www.ukw-tagung.de/</a>
Sept tbc	Crawley Roundtable	
Sept 15–20	European Microwave Week, Utrecht	<a href="http://www.eumweek.com/">www.eumweek.com/</a>
Sept 27-28	National Hamfest	<a href="http://www.nationalhamfest.org.uk/">http://www.nationalhamfest.org.uk/</a>
Sep-29 - Oct-4	European Microwave Week, Paris	<a href="http://www.eumweek.com/">http://www.eumweek.com/</a>
Oct 3	Microwave Update, Dallas, TX	<a href="http://www.microwaveupdate.org">www.microwaveupdate.org</a>
Oct 11-13	RSGB Convention	<a href="http://rsgb.org/convention/">http://rsgb.org/convention/</a>
Oct tbc	Microwave Update, Dallas, Texas	<a href="http://www.microwaveupdate.org/">http://www.microwaveupdate.org/</a>
Oct-28 - Nov-22	ITU WRC-19, Sharm el-Sheikh	<a href="http://rsgb.org/wrc-19">http://rsgb.org/wrc-19</a>
November 2	GM Round Table	<a href="https://www.gmroundtable.org.uk">https://www.gmroundtable.org.uk</a>

## 2020

August	EME 2020 in Prague	domain <a href="http://www.eme2020.cz">www.eme2020.cz</a> registered but currently not in use [ <i>Googling EME2020 comes up with some unusual items! Ed.</i> ]
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## USA Conference Activities

Kent Britain G8EMY/WA5VJB

### Central States VHF Society

The 2019 conference will be held July 25th in Lincoln Nebraska. [www.2019.CSVHFS.ORG](http://www.2019.CSVHFS.ORG) for additional information.

### Microwave Update

will be held October 3rd near Dallas, Texas. [www.microwaveupdate.org](http://www.microwaveupdate.org) for additional information

I have the 'fun' of doing the Conference Proceedings for both events and arranging for presentations and speakers.

So very interested in any technical or operating items you may have on VHF/UHF activity for the CSVHFS Proceedings, and any UHF/Microwave material for Microwave Update. Hey, really good stuff can go in both!

Our attendees always find items from the other side of pond interesting.

I will arrange for a copy of the Proceedings to all who submit material.