

# UK Microwave Group Report to RSGB Spectrum Forum



## Introduction to UKuG

The UK Microwave Group represents the interests of amateur GHz bands radio enthusiasts in the UK. Its Committee is an elected body representing the interests of UK amateur microwave enthusiasts. The UKuG is open to membership for both UK and overseas microwavers. UKuG is now 16 years old, having been formed at the Martlesham Microwave Roundtable in November 1999 and it is affiliated to the RSGB. Current membership is: 475, up by 32. So far in 2015 there are 50 new members and 18 members who have not renewed/advised they have left the group.

## Events organised and supported during 2015

- Martlesham Microwave Roundtable with UKuG AGM - April
- Microwave Roundtable and buildathon organised by the Finningley Club – July.
- Microwave Roundtable organised by the Crawley Club - September
- Scottish Microwave Roundtable, Burmtisland near Dunfermline - November
- Hagbourne Village Microwave Roundtable organised by the Harwell Club. This was formerly held at RAL, but unfortunately we lost access to that venue
- RSGB Convention 2015

## Club and outreach

We provided technical support to Camb-Hams members who are starting out on the GHz bands. Members presented talks at all the GHz Bands Round Tables this year, on various topics including the Chipbank, a 3.4GHz receiver and small-station EME. Members have visited several clubs to present talks on Microwaves or Millimetre-wave Microwaves (the latest was the Norwich Club) and there are plans to visit more in 2016. The Group membership provided eight speakers and three stream chairmen at the RSGB convention

## Technical Support and loan equipment

A number of UKuG members provided technical support as part of our scheme including beacon repair (GB3BSS, GB3MHZ) and construction (GB3PKT 24GHz is under construction) plus equipment testing. Members built and installed a new beacon driver for the GB3MHZ cluster, as well as providing hardware and support to the 432MHz beacon replacement project. Members have been actively supporting Joe Taylor K1JT to further develop the WSJT-X suite of Digimode programs. Our "members' loan" transverter systems now number four, covering 5.7, 10, 24 and 76GHz. Providing support for beginners and established microwavers.

## Chipbank

The chipbank offers a completely free service to members, and includes a fairly comprehensive selection of chip resistors, capacitors and inductors as well as a good selection of useful semiconductors and other components. As a result of component

donations, two catalogue updates have been necessary during the past year. In the twelve months to October 2015, twenty seven requests from members have been serviced. In addition, four roundtables were attended allowing members to browse through the stock and select items for their projects.

## **Publications**

UKuG members still write five of the regular columns in RadCom, write for Practical Wireless and regularly contribute technical articles and write the European activity report for Dubus magazine.

## ***Scatterpoint***

The e-newsletter of the Group, under the Editorship of Martin, G8BHC, is published at least 10 times a year and continues to attract top-line technical articles as well as being a comprehensive repository of reports of activity. An annual index is published in December and an archive of previous years' issues is maintained on the web site. There are 461 members of the Yahoo Scatterpoint group. Copies of the monthly magazine are also available to members via Dropbox links. Scatterpoint carries a regular activity report column, compiled by Bob G8DTF, which has detailed reports from members of their activities on the microwave and millimetre bands, illustrating the breadth of propagation modes and modes of operation in regular use. These reports cover Wideband, Narrowband and Machine Generated Modes(MGM) activity used for both local and DX operations.

## ***Group website and beaconspot.eu***

This year UKuG has added a YouTube video channel and a Twitter feed @UKGHZ to its web activities, in order to highlight innovation such as long-distance QSOs on the 47, 76 and 134 GHz mmWave bands. Our main website, microwavers.org, also provides listings for Operating Firsts/DX records, Chipbank stock updates, a regularly updated beacon maps and a rolling events calendar.

Our sister site, Beaconspot.eu, also continues to increase its user base and facilities for beacon reports and reception maps. It has been upgraded with a "My beacons" and a "Watch list" facility, plus a locator finder.

## **Beacons**

The Group's major concern at the moment is that there is a growing list of 1296MHz Beacons that are waiting for site moves and changes, but appear to be going nowhere fast within Ofcom. This is causing great frustration amongst our members who are keen to push forward the hobby in this area.

**We ask the Society to raise this issue at the highest level within Ofcom at the earliest opportunity.**

The excuse that Ofcom staff are too busy with WRC and other issues is not good enough. These delays have been excessive.

See [http://www.ukrepeater.net/vetting\\_beacons.php](http://www.ukrepeater.net/vetting_beacons.php)

## **Operation**

Development continues by a few on all bands with an emphasis on the 47, 76 and 134GHz bands amongst experienced microwavers. The 134GHz UK distance record was extended to 19.2km this year. 1296MHz and 10368MHz continue to be the most

popular terrestrial microwave bands. 10GHz, helped by the UKuG's beginner's presentation at the RSGB Convention this year, is showing signs of increased interest as 1296MHz operators look for a new Challenge. The response to the 2300MHz NoVs has been disappointing so far, with a few early takers but no sign of any long term traction on the allocation. I believe that this is down to the "I only go on during contests because that's where the activity is" approach of the majority of active microwavers. Maybe we should move all the 2.3GHz events to be exclusively 2300MHz to encourage uptake. As per last year, activity is clustered around UKAC and other contests, with little activity under "flat band" conditions. Heavy publicity for the LZ5HP low cost 1296MHz transverter in both the GHz Bands column and by UKuG members on social media has resulted in quite an uptake with many new stations planning to start on that band, notably, younger Amateurs have taken this up.

## **EME**

Small dish EME is continuing to generate interest with UKuG members leading the way on 10GHz with QSOs with sub-1m dishes. There continues to be 1296MHz activity pretty much any time the moon is up. Stations with dishes smaller than 2m, are showing what can be done with JT modes and CW on this band. This demonstrates the increasing practicality of every day intercontinental DX on the microwave bands with a low-profile antenna. My personal experience on EME and terrestrial 1296MHz is that it's easier to get a 1296MHz EME QSO outside contests and lifts than one via terrestrial modes.

## **UKuG Awards**

This year's G3BNL, G3EEZ and Fraser Shepherd Award for innovation have not yet been awarded.

G3VVB construction trophy went to G8ACE for his 134GHz transverter

The 2014 operating awards were awarded at the Martlesham Round table in April 2015 as follows:

5.7GHz G3KEU Trophy – Ian Lamb G8KQW/P

10GHz G3RPE Memorial Cup – Nick Peckett G4KUX

10GHz G3JMB Memorial Trophy – Nick Pearce G4WLC/P

24GHz G0RRJ Memorial Cup – Roger Ray G8CUB/P

24GHz Trophy – Keith Winnard GW3TKH/P

47GHz Trophy – Roger Ray G8CUB/P

## **UKuG Contests and Certificates**

During the year, two squares certificates were issued to Tony Collett G4NBS for 10 squares on 2.3GHz and 65 squares on 1.3GHz. No other certificate awards have been made. The database of UK microwave "Firsts" has continued to be updated, most recently as a result of excellent tropospheric propagation which enabled the first Wales-Denmark contact to be made on 10GHz.

The UKuG contest programme for 2015 was revised to move the 24GHz events to a separate date from 5.7 and 10GHz, in view of the different propagation characteristics of these bands. The new programme has five 5.7/10GHz events during the summer months, and four 24/47GHz events with one date also including the higher bands from 76GHz upwards. Entries for the mm-wave band events have increased as a result, and there are more stations now becoming active on these bands as a result of the increased focus. Entry levels on the other bands have remained fairly static. The

UKuG Contest Manager also adjudicates the SHF UK Activity Contests which continue to grow in popularity, although 2.3GHz operation is somewhat hampered in the summer months by the need to avoid potential interference to other services during mid week daylight hours.

Submitted by G4BAO on behalf of the UK Microwave Group, October 2015