

UK Microwave Group

Report to RSGB Spectrum Forum



Introduction to UK Microwave Group

The UK Microwave Group (UKuG) represents the interests of amateur radio enthusiasts who operate on frequencies above 1.0GHz. The UKuG is open to membership from both the UK and overseas microwavers. The current membership stands at 560 with about 50 new members joining in the last year.

Events supported during late 2019 and 2020

Normally a series of specialist amateur radio microwave meetings; Microwave Round Tables are organised by local radio clubs and societies and supported by the UKuG. Since the last Spectrum Forum meeting only two events were able to take place, December 2019 and March 2020, these were well supported.

Impact of COVID-19 on amateur microwaves in the UK.

There are three main areas where COVID-19 has impacted on UK microwaves. The first is the cancellation of all the Microwave Round Tables since March with little prospect of them resuming in the near future. This has meant members have not been able to meet in person and besides not being able to attend talks, have not had access to specialist test equipment to check or calibrate home brew or ex-commercial equipment. In addition members have not had access to the sale of surplus equipment, components or kits intended for home brew which are an important feature of each Round Table.

The second impact has been on operating. During the full lockdown period no portable operation was allowed. During contests and activity periods a significant number of operators have little choice but to go out to a local high spot to operate. It was encouraging to see a number of microwave operators set up home stations to at least have a few contacts. When full lockdown ended we saw a rapid return to portable operating. As we move towards the end of 2020 and the return of lockdown in England and similar measures in the other countries of the UK we once again there will be a curtailment of portable operating.

The third impact has been on our club and outreach activities. Luckily many local radio clubs now hold virtual meetings via zoom. Several of our members have given on-line takes to local clubs. The UKuG will begin its own series of on-line talks in November.

Technical Support and loan equipment

The UKuG loan systems for 5.7, 10, 24 and 76GHz have continued to be well used. A system for 47GHz will be available soon.

The group has continued to fund capital expenditure on new beacon projects. It is currently in contact with amateurs on the Cape Verde Islands to see what help and support they need to get equipment that can be used both as beacons and for potentially QSO's on the 23 and 3cm bands which take advantage of good tropospheric propagation conditions back to the UK and Europe that occur each summer.

During the last year the UKuG chip bank has continued to be popular with members. It is currently operating on an on-line order service only. Several large donations of components and other items have boosted and expanded stock.

Publications

UKuG members write several of the regular columns in RadCom, write for Practical Wireless and regularly contribute technical articles and the European activity reports for DUBUS magazine.

Scatterpoint

The e-newsletter of the Group, under the Editorship of Roger, G8CUB, is published at least ten times a year and continues to attract top-line technical articles as well as being a comprehensive repository of reports of activity.

Group web presence

The Group has established a Wiki, which continues to be populated with amateur microwave related material. The UKuG has an increasing number of microwave related videos on its YouTube video channel. The Twitter feed @UKGHZ attracts many likes and retweets. Beaconsport.UK is a valuable resource and archive of propagation conditions in the UK and across Europe.

- Web: <http://www.microwavers.org/>
- Wiki: <https://wiki.microwavers.org.uk/>
- Twitter: <https://twitter.com/UKGHZ>
- YouTube: <https://www.youtube.com/c/UKMicrowaveGroup>

Operation

The amateur radio microwave bands continue to be under threat from many different commercial radio organisations who would wish to use them for mobile broadband and other activities. Of particular concern at the moment is the future access to the 1.3GHz band. WRC19 agreed to studies being carried out to determine what protection systems like Galileo will need to provide uninterrupted service and whether amateur radio can continue to share the spectrum space.

Other microwave bands continue to be lost in other parts of the world, the latest being the 9cm in the USA from November next year.

Following publication of an article in DUBUS magazine in 2019 on simple 122GHz equipment based on short range radar chips and the world wide crowd funding of the production of systems pcbs, there has been a significant upsurge in the UK of the use of the band. Distance records are gradually being increased and different modulation techniques for voice and data are being investigated.

Awards

The UKuG presents a number of awards for achievement and contests winners. This year saw a new award presented in honour of the late Michel Walters G3JVL who was a pioneer in microwave equipment and microwave antenna design. The award went to Phil Boorman G0JBA for his significant achievements on the 24GHz band as a newcomer to that band.