

General comments on the Ofcom Proposal to exempt automotive short range radar equipment at 24GHz from Wireless Telegraphy licensing

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Introduction

I am responding as a UK amateur radio licence holder for some 37 years and currently use the microwave Amateur Radio allocations 1.3 to 142Ghz, including the 24GHz band where roadside operation is often commonplace.

Response

I wish to make the following points in support of why the 24Ghz band *should not* be used by the above systems:-

- The section of the 24GHz band proposed *is* a *Primary* allocation for amateurs. This is a flagrant breach of a previously agreed Primary Allocation which is legitimately and internationally recognised by the Amateur and Amateur Satellite Service.
- The measures proposed are not significant enough to ensure adequate protection for weak signal working by amateurs, or unwitting interference by amateur operation *to* the SRR.
- 24GHz radar in this segment will set a precedent for other types of system to “free-load” there at a later date, further eroding the “Primary Status” of this segment.
- It will not be possible to police potential interference from what is essentially a mobile license free system? Ofcom will not have the resources.
- There may, in a number of cases, be interference *to* the radar system due to the proximity of a nearby high power amateur station in the beamwidth of the radar antenna. This could cause the radar system to momentarily malfunction, produce erroneous information and thus become a dangerous safety issue. (*Look at the ongoing fiasco with 433Mhz keyfobs in the 433Mhz band, albeit not safety related, where an ill-considered decision on band sharing was made.*)
- Development of the 79GHz equipment would quite possibly be delayed since most energies will be channelled into producing equipment for the 24GHz band. Thus when the time expires for the 24GHz segment, users could be seeking extensions of the expiry date thus exacerbating the problem for amateurs. If the Primary Status agreement has already been breached then what will stop a further extension of usage of this band when the time expires, or of it being hijacked by another “essential” system.
- The comment that the uptake of SRR will be slow is ill-founded, since this was thought to be the case with GPS which is now quite common in vehicles.
- While recognising that the EC ruling , which seems to have been driven by commercial considerations, may be implemented, CEPT should re-examine the grounds on which it was decided to allow the EC use of this part of the band since the amateur weak signal requirements are similar to those of Radio Astronomy Service and thus should be afforded the same considerations.
- Would a system specification be tight enough to ensure non-interference from harmonic outputs in the other *primary* amateur bands at 47 and 76GHz?

My recommendation would be to forget hasty introduction of the 24GHz vehicle radar, driven no doubt primarily by commercial concerns, and develop the 79GHz technology, which is already being pioneered by amateurs themselves, and thus should be easily within the reach of many commercial companies. It may then be implemented in a timely and sound manner, and in a frequency band more applicable to its use, rather than “cobbling together” short term, something that will always have safety issues and alienate the existing users of the 24GHz band.