

## Notice of Ofcom's proposal to make (Ultra-Wideband Equipment) (Exemption) Regulations

### Response by the Radio Society of Great Britain



July-2007

#### Introduction

This response is a joint one from the Radio Society of Great Britain (RSGB, [www.rsgb.org.uk](http://www.rsgb.org.uk)) and its affiliates UK Microwave Group (UKuG, [www.microwavers.org](http://www.microwavers.org)) and Amsat-UK ([www.uk.amsat.org](http://www.uk.amsat.org)) and the wider UK Amateur Radio community.

RSGB is recognised as one of the leading organisations in the world in the field of amateur radio. It collaborates with its fellow national societies via the International Amateur Radio Union (IARU) through IARU Region-1 ([www.iaru-r1.org](http://www.iaru-r1.org)).

Amateur radio is a science based technical hobby enjoyed by over three million people worldwide. From a statutory point of view it is fully recognised by the International Telecommunication Union (ITU) as a service and is listed in the ITU Radio Regulations as the Amateur Service and the Amateur-Satellite Service. The wide-ranging role of amateur radio from training/education to satellite and emergency communications was recently highlighted in an exhibition, "Amateur Radio, a European Resource", which took place in the European Parliament at Brussels in March 2007.

RSGB and its affiliated groups have contributed to both the original UK Ofcom UWB consultation in March 2005 and three subsequent rounds of consultation by ERO TG3 since then as the resultant regulatory compromise for UWB was developed.

We are pleased to enclose our comments overleaf on Ofcom's particular implementation of the European UWB decision. We would also be pleased to provide any additional information on request or participate in any future discussions, both with Ofcom or any other stakeholder who has an interest in this topic.

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*RSGB, Amsat-UK, UKuG - July 2007*

## General Position

Whilst we recognise the potential value of UWB applications we stress that there **must be maximum clarity in its regulation** for both manufacturers as well as the legitimate interests of fully licensed services that might be affected

We are principally concerned with Amateur Services allocations at 3.4, 5.6-5.8 and 10GHz. In that respect we are comfortable with the European emissions limits for those bands in the present regulations, which also assume predominantly indoor usage. However we are aware that there is the potential for 'regulatory creep' and grey imports, for example from the US where laxer rules are in force. In addition:-

- UWB must fully comply with the International Radio Regulations and that **all such devices must operate on a non-protected, non-interference basis.**
- We strongly support the position that the 6-8.5GHz (or 6-9GHz) range should be the long term home for UWB, and UK regulation must at an early stage fully reflect that expectation as per:

**Commission Decision 'Whereas 18':-**

***"The conditions in the 4,2 to 4,8 GHz band for equipment using ultra-wideband technology without appropriate mitigation techniques should be time limited and be replaced by more restrictive conditions beyond the date of 31 December 2010, because there is an expectation that equipment of this type should operate exclusively above 6 GHz in the longer term. "***

On the compliance front, given their difficult nature to characterise, we would encourage Ofcom to take an active interest in measurement procedures and test equipment for UWB devices.

Finally, we note that there are ongoing developments in the European regulatory arena regarding DAA mitigation (which we consider to be unproven and impractical), outdoor/automotive usage and modifications to the emissions mask in the 3-5GHz area. Should these result in additional regulatory changes we would request that additional and full consultation takes place, as they have the potential for significantly higher interference risks.

## Specific Comments on Regulatory Clauses

### Activity Control

The ERO Decision (ECC/DEC/(06)04) and Clause-8 of the EU Commission Decision includes a requirement for UWB equipment to cease transmission within 10s unless a transmission acknowledgement is received. This is not present in the Ofcom regulations and is one of several essential ingredients for mitigating unnecessary emissions and reducing potential interference.

### Regulation 5a (iii) - the 'Sunset' Clause

As stated above, maximum clarity and consistency with the mandatory European decision should be present at the start with regard to the 2010 'sunset clause' for unmitigated use of the 4.2-4.8GHz band, to encourage uptake of the 6GHz+ solution (as endorsed by the Bluetooth SIG)

Either the Ofcom regulation itself should explicitly incorporate the time limit or at the very least have an informational clause included that this is expected to occur. We are sensitive to Ofcom not implementing such clauses in the past in other arenas and this has the potential to cause regulatory defaults and problems. We quote the example below of 24GHz SRR where Ofcom have not yet complied with a sunset clause that took effect at the end of June 2007.

### Previous Sunset Clause Example:

Another example of a UWB system with timed (ie sunset) clauses in its regulatory framework for licence exemption is 24GHz UWB Short Range Radar (SRR). This was introduced with a requirement that manual deactivation around defined exclusion zones was only permitted until the end of June-2007. Ofcom did not include the time-limit clause in its original regulations, indicating at the time that they would be updated in time.

**However as of early July 2007 this update to the regulations to comply with the EU mandate had not occurred.** Additional dates are stipulated in the EU mandate (tighter antennas elevation beams by 2010 and an end to new sales by July 2013) which again aren't in the Ofcom regulations – even in an advisory capacity.

This makes UK regulations out of step with EU ones in an area where such devices are also somewhat controversial with other spectrum users, as well as being hard to track in the market. Such omissions also do not help to inform more casual readers of the interface regulations who may not have the full background.