



Decision to make the Wireless  
Telegraphy (Automotive Short  
Range Radar) (Exemption) (No.2)  
(Amendment) Regulations 2008

Statement

Publication date: 11 February 2008



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## Section 1

# Summary

- 1.1 This statement confirms that, following a formal consultation, the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) (No.2) (Amendment) Regulations 2008 (No. 237) (the “Amending Regulations”) were made by Ofcom on 6 February 2008, and will come into force on 27 February 2008. A copy of the Regulations will be available through the Office of Public Sector Information (OPSI) later this month<sup>1</sup>.
- 1.2 The Amending Regulations amend the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) (No.2) Regulations 2005 (the “SRR Exemption Regulations”) which was the existing exemption for automotive Short Range Radars (“SRR”) operating in the 24 GHz band. The Amending Regulations remove the option of manual deactivation of the devices when entering exclusion zones close to radio astronomy sites<sup>2</sup>, as required by Commission Decision 2005/50/EC<sup>3</sup> (the “Decision”).
- 1.3 We are required to comply with the Decision, the implementation of which is mandatory on all European Union (EU) Member States.
- 1.4 Before deciding to make the Amending Regulations, in accordance with the requirements of section 122(4) of the Wireless Telegraphy Act 2006 (“the Act”), on 14 November 2007 we published a Statutory Notice<sup>4</sup> (the “Notice”) containing a draft of the proposed Regulations (the “Proposed Regulations”) and inviting comments from stakeholders.
- 1.5 We received one response to the Notice and having carefully considered the response to the Notice we have decided to proceed with making the Amending Regulations.

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<sup>1</sup> A link to the online version can be found at <http://www.opsi.gov.uk>

<sup>2</sup> Location of exclusion zones are outlined in Annex 2

<sup>3</sup> Available at [http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l\\_021/l\\_02120050125en00150020.pdf](http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_021/l_02120050125en00150020.pdf).

<sup>4</sup> Available at <http://www.ofcom.org.uk/consult/condocs/srr/srr.pdf>.

## Section 2

# Introduction

- 2.1 In January 2005, as part of its eSafety initiative to improve road safety in Europe, the European Commission adopted the Decision on the harmonisation of the 24 GHz range radio spectrum band (21.65 to 26.65 GHz) for time-limited use by automotive SRR equipment in the European Union. The Decision required that the 24 GHz band be designated and made available for automotive SRR equipment until 30 June 2013.
- 2.2 We exempted the use of automotive SRR equipment in the 24 GHz band in June 2005 by making the SRR Exemption Regulations. This exemption specifically allowed the use of short range radars on cars which would enable various safety related technologies to be deployed.
- 2.3 The Decision also required that after July 2007 manufacturers would have to ensure that these radars automatically shut down when entering a protection zone surrounding five radio astronomy sites in the UK<sup>5</sup>. Before July 2007 the Decision allowed manufacturers the option of allowing manual deactivation of these radars, however the amendment regulations now remove this option.
- 2.4 Exemption is realised by describing the details of equipment and the parameters under which it may be used in Regulations that exempt users of such equipment from the need to hold a Wireless Telegraphy Act (“WT Act”) licence provided they comply with the terms of those regulations.
- 2.5 In order to implement the Decision, and in accordance with our statutory obligations, a draft of the Amending Regulations was published and subject to a one month and a day consultation period. We consulted on the amendments to the SRR Exemption Regulations between 14 November 2007 and 17 December 2007 in the document “Ofcom’s proposal to amend the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) (No.2) Regulations 2005”, available on the Ofcom website<sup>6</sup>.
- 2.6 Having reviewed the response received determined that it was appropriate to proceed on the same basis that we consulted we made the Amending Regulations on 6 February 2008. The Amending Regulations enter force on 27 February 2008.

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<sup>5</sup> The locations of the exclusion zones can be found in Annex 2

<sup>6</sup> Available at <http://www.ofcom.org.uk/consult/condocs/srr/srr.pdf>.

## Section 3

# Scope of Regulations

## Responses to the Notice

- 3.1 We received one response to the Notice.
- 3.2 The joint response from the RSGB, UK Microwave Group and Amsat-UK raised a number of points which are outlined below along with our response.
- 3.3 A question was raised concerning when the regulations would come into force. The response noted that the Decision specified that 30 June 2007 was designated as the 'transition date' for the implementation of this change. As noted the Amending Regulations will come into force on 27 February 2008.
- 3.4 In implementing the Amending Regulations the effect is that we have allowed a slightly more permissive exemption for automotive short range radar equipment over the period between 30 June 2007 and 27 February 2008 than that provided for by the Decision. It is our view that Regulations should not be applied retrospectively as a matter of law. We understand that a relatively small number of vehicles would be fitted with SRR equipment between 30 June 2007 and the date at which the Amending Regulations come into force, and of those only a proportion, if any, will have been fitted with equipment that requires manual deactivation. Further, the effect of the exemption both before and after the Amending Regulations take effect is that any manually de-activating equipment must be switched off when the vehicle is within an exclusion zone, so no additional interference is permitted as a result of the exemption operating slightly longer than beyond the transition date.
- 3.5 The respondent also raised a point requesting a more timely start to work on implementing changes in 2009 to comply with Article 4, paragraph 3 of the Commission Decision 2005/50/EC.
- 3.6 Article 4, paragraph 3 of the Commission Decision 2005/50/EC states "*emissions within the 23.6 – 24.0 GHz band that appear above 30° or greater above the horizontal plane shall be attenuated by at least 25 dB for automatic short-range radar equipment placed on the market before 2010 and thereafter by at least 30 dB*".
- 3.7 We note the comment and intend to implement the changes as required by the Decision.
- 3.8 The response raised a final general comment highlighting that this change is one of many sunset or timed clauses inserted into a number of radio regulations. The response suggested that it would be very useful if this information could be brought together and made publicly available in a single format.
- 3.9 We are committed to improving the information that we provide to stakeholders and will consider implementing the suggestion.

## Final scope of the Regulations

- 3.10 SRR equipment has been defined in the SRR Exemption Regulations as equipment installed in a vehicle providing radar functions for collision mitigation and traffic safety

applications. This definition does not change as a result of the Amending Regulations,

- 3.11 Regulation 2 of the Amending Regulations makes minor amendments to the SRR Exemption Regulations to update references from the Wireless Telegraphy Act 1949 to the Wireless Telegraphy Act 2006.
- 3.12 Regulation 2 is the substantive amendment which alters regulation 4(7) (b) of the SRR Exemption Regulations, replacing with a new regulation 4(7) and adding a new regulation 4(8). The effect of the change is to preserve the time limited exemption for both automatically deactivating and manually deactivating equipment put into service in the Community before the date on which the Regulations will come into force, that is, before 27 February 2008 (regulation 4(7)). Regulation 4(8) provides that equipment put into service in the Community on or after 27 February 2008 will only be permitted if it automatically deactivates when the vehicle is within an exclusion zone around the radio astronomy sites.

### **Extent of application**

- 3.13 The Amending Regulations apply in the United Kingdom, the Channel Islands and Isle of Man.

## Annex 1

# Regulatory Impact Assessment

## Introduction

- A1.1 In accordance with Government practice, where a statutory regulation is proposed, a Regulatory Impact Assessment (“RIA”) must be undertaken.
- A1.2 The analysis presented here represents an RIA as defined by section 7 of the Communications Act 2003 (“the Communications Act”) for amending the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) (No.2) Regulations 2005 (the “SRR Exemption Regulations”).
- A1.3 RIAs provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making and are commonly used by other regulators. This is reflected in section 7 of the Communications Act, which means that we will generally carry out impact assessments where proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in our activities. However, as a matter of policy we are committed to carrying out and publishing impact assessments in relation to the great majority of our policy decisions. In accordance with section 7 of the Communications Act, in producing this RIA, we have had regard to such general guidance as we consider appropriate including related Cabinet Office guidance. For further information about our approach to impact assessments, see the guidelines, Better policy-making: Ofcom’s approach to impact assessment<sup>7</sup>.

## Background

- A1.4 In the UK, we are responsible for the authorising of civil use of the radio spectrum and achieve this by granting wireless telegraphy licences under the Wireless Telegraphy Act 2006 (the “WT Act”) and by making Regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 8(1) of the WT Act, it is an offence to install or use equipment to transmit without holding a licence granted by us, unless the use of such equipment is exempted. However under Section 8(4) of the WT Act we must make regulations to exempt equipment if it is unlikely to cause undue interference.
- A1.5 A Decision to allow the use of the automotive short-range radar in the 24 GHz band within the Community was published on 25 January 2005<sup>8</sup> and implemented in the UK through the SRR Exemption Regulations in 2005.

## Proposal

- A1.6 This RIA relates to our decision to make the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) (No. 2) (Amendment) Regulations 2008 (the “Amending Regulations”) which slightly amend the SRR Exemption Regulations in order to

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<sup>7</sup> Available at: [http://www.ofcom.org.uk/consult/policy\\_making/guidelines.pdf](http://www.ofcom.org.uk/consult/policy_making/guidelines.pdf)

<sup>8</sup> Commission Decision 2005/50/EC on the harmonisation of the 24 GHz radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community (OJ No L 21, 25.1.05, p.15) available at [http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l\\_021/l\\_02120050125en00150020.pdf](http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2005/l_021/l_02120050125en00150020.pdf).



comply with a time-related aspect of the Decision, following our consultation published on 14 November 2007<sup>9</sup>.

### **The citizen and/or consumer interest**

A1.7 We take account of the impact of our decisions upon both citizen and consumer interests in the markets we regulate. As a Member State, the UK is bound by the terms of the Decision and the requirement to implement them.

### **Our policy objective**

A1.8 As a Member State, the UK is bound by the terms of the Decision and the requirement to implement them. However, in addition to this, the Amending Regulations will help us to reduce the risk of these automotive short-range radars interfering with other spectrum users.

### **Options considered**

A1.9 The options Ofcom considered were:

- to make the Amending Regulations to be compliant with the Decision; or
- to do nothing.

### **Analysis of options**

#### **Make new Regulations**

A1.10 The most efficient route to mandatory compliance is to make the Amending Regulations to ensure that we comply with the Decision as closely as possible.

#### **Do nothing**

A1.11 By doing nothing, we would be in breach of the Decision and could be open to infraction proceedings initiated by the European Commission.

### **Evaluation**

A1.12 Article 5 of the Decision requires that that the continued availability of this spectrum for short-range radar applications be kept under active scrutiny to ensure that the main premise of the opening this band to such systems remains valid. In addition that a fundamental review of the initial assumptions concerning the operations of automotive short-range radars be carried out by 31 December 2009.

A1.13 We will assist the Commission in carrying out these reviews as required.

### **Conclusion**

A1.14 Ofcom has decided to make the Amending Regulations in order to comply with the Decision. The benefits of this option are that the UK remains compliant with European Community law and the prospects of interference within the exclusion zones is minimised to the extent that an increasing proportion of automotive short-

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<sup>9</sup> Ofcom's proposals to amend the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) (No. 2) Regulations 2005 available at <http://www.ofcom.org.uk/consult/condocs/srr/srr.pdf>

range radars will automatically deactivate when operating in a vehicle when it is within an exclusion zone.

## Annex 2

# 24 GHz exclusion zones around UK radio astronomy sites

A2.1 The exclusion zone radius for each UK radio telescope has been calculated on the basis of the following criteria:-

- An ITU-R Recommendation RA.769 radio astronomy protection level of -215 dBW/(m<sup>2</sup>.Hz) for single dish spectral line observations and a protection level of -208 dBW/(m<sup>2</sup>.Hz) for continuum measurements made on radio telescopes operating in the MERLIN network.
- Standard radio telescope antenna gain of 0dBi (RA.769)
- Propagation model P452
- Additional local loss increasing with distance @ 1dB per km
- UWB e.i.r.p -41.3dBm/MHz (-71.3dBW/MHz)
- Maximum density of 24 GHz devices of 1 per square km

A2.2 Five of the six major UK radio telescopes perform observations around 24 GHz and can be divided into two categories; The most sensitive measurements are undertaken with single dish radio telescopes at Jodrell Bank and Cambridge, while measurements at Knockin, Pickmere and Darnhall are undertaken with the radio telescopes linked in the more resilient MERLIN array of networked sites. After considering all these factors the exclusion radii have been determined to be 9 km for sites used for single dish measurements and 5 km at the networked sites.

OBSERVATORY	LOCATION		EXCLUSION ZONE RADIUS (km)
Jodrell Bank	02° 18'26" W	53° 14'10" N	9
Cambridge	00° 02'20" E	52° 09'59" N	9
Darnhall	02° 32'03" W	53° 09'22" N	5
Pickmere	02° 26'38" W	53° 17'18" N	5
Knockin	02° 59'45" W	52° 47'24" N	5

A2.3 For illustrative purposes only these zones are shown on the following maps.

## A2.4 Map 1 - Pickmere



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## A2.5 Map 2 – Darnhall



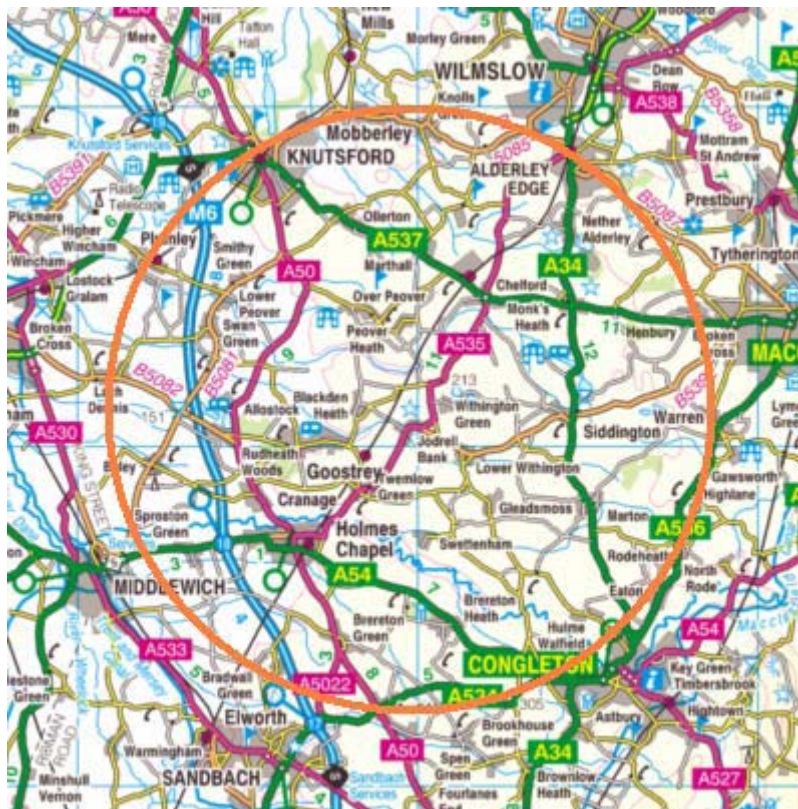
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**A2.6 Map 3 – Knockin**



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## A2.7 Map 4 – Jodrell Bank



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**A2.8 Map 5 – Cambridge**



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### **Annex 3**

## **List of Respondents**

A3.1 One response was received to the Notice:

Joint response from RSGB, UK Microwave Group & Amsat-UK