Ofcom's decision to exempt the use of automotive short-range radar equipment at 79 GHz from wireless telegraphy licensing

Statement and Statutory Regulations

Consultation

Issue date: **24 February 2005**

Contents

Section 1

Summary

1.1 Following the adoption of the Decision (2004/545/EC) on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment ("SRR equipment") in the Community (the "Decision"), Ofcom published a consultation document*1* proposing to implement the measures provided for in the Decision by:

i. designating the 79 GHz band for use by SRR equipment on a ' non-interference non-protected basis' in the UK Plan for Frequency Authorisation[2]; and

ii. making the 79 GHz band available for this purpose by a statutory instrument (Regulations) which would permit the use of SRR equipment without the need to hold a licence under the Wireless Telegraphy Act 1949 (the "1949 Act"). The 79 GHz band includes 77, 78, 79 and 80 GHz.

1.2 In order to exempt the use of the SRR equipment Ofcom proposed to make new regulations: the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005 (the "Proposed Regulations"). The Proposed Regulations were made in line with the measures provided for in the Decision and Ofcom consulted on them for a month as required by the Communications Act 2003.

1.3 Ofcom received 6 non–confidential responses to our proposals which were submitted by:

i. Chelmsford Amateur Radio Society

ii. UK Microwave Group

iii. C H Towns

iv. John Hazel; and

v. British Amateur Television Club and AMSAT-UK (joint response)

vi. Julian Smith

1.4 The responses are published on Ofcom's website and can be viewed at: http://www.ofcom.org.uk/consult/condocs/radar/responses/. In principle, the respondents did not disagree with Ofcom's proposals however they raised the following main points:

i. That Footnote EU35 of the European Frequency Tables[3], which stated that *'the band 75.5-76 GHz is in Europe also allocated to the Amateur and Amateur Satellite services after year 2006'*, was acknowledged and implemented in the UK Frequency Allocation Tables and the Schedule for UK Radio Amateurs (BR68). In particular, that the band 75.5-76 GHz would

[1] The consultation document " Notice of Ofcom's proposals to exempt the use of automotive short-range radar users at 79 GHz form wireless telegraph licensing", 14 December 2004, is available at: http://www.ofcom.org.uk/consult/condocs/radar/

[2] http://www.ofcom.org.uk/licensing_numbering/radiocomms/spectrum/ukpfa/

[3] Footnote EU35 of the European Frequency Tables amended Footnote 5.559A of the European Frequency Tables

continue to be available and allocated to the Amateur services on a primary basis beyond 2006;

ii. that Ofcom should make it clear that, as stated in Article 2c of the 2004/454/EC Decision the use of SRR equipment would be exempted on a 'non- interference and non-protected' basis so manufacturers and users could properly assess liability issues before deploying any such equipment; and

iii. that Ofcom should take into account their views against the prospect of exempting the temporary use of SRR equipment at 24 GHz which is the Radio Amateurs' primary allocation and requested that consultations were held with UK Amateurs, Astronomers, Earth Resource, Meteorological and other weak signal flux users of the 24 GHz band prior to any decision of use of that band for SRR equipment.

1.5 Ofcom considered the above comments and responds that:

i. Ofcom is aware of Footnote EU35 of the European Frequency Tables and will take all necessary steps to permit Amateur and Amateur Satellite services in 75.5-76 GHz after 2006;

ii. in the consultation document Ofcom proposed to exempt the use of SRR equipment at 79 GHz on a 'non-interference and non-protected basis' as required by the 2004/454/EC Decision. The final Wireless Telegraphy Automotive Short Range Radars (Exemption) Regulations 2005 (the 'Regulations') exempt the use of automotive SRR equipment which does not cause undue interference to other users of the 79 GHz frequency band (Regulation 4(c)). In addition, the 79 GHz frequency band is designated for use by SRR equipment in the UK Plan for Frequency Authorisation on a 'non-interference and non-protected' basis;

iii. Ofcom acknowledges the views expressed regarding the prospect of exempting the temporary use of SRR equipment at 24 GHz; however, this matter is outside the scope of this consultation exercise. On 8 December 2004, a Decision on 24 GHz was adopted by the European Commission following the European Conference of Postal and Telecommunications Administration's (CEPT) work on the compatibility between automotive SRR equipment and other uses of the 24 GHz band. Ofcom will consult with all interested parties on the implementation of the measures provided for in the relevant Decision including the exemption the temporary use of automotive SRR equipment at 24 GHz in due course.

1.6 This document sets out Ofcom's decision to exempt the use of automotive SRR equipment at 79 GHz from wireless telegraphy licensing by making the final Regulations. The Regulations (2005/353) were made on 22 February 2005 come into force on 17 March 2005 and will shortly be published on the HMSO website. These are made in line with the 204/545/EC Decision, and are available in draft form in Annex 2 of this document.

1.7 Section 2 of this document discusses the background to Ofcom's decision and sets out the representations received by Ofcom, Ofcom's response to the representations and Ofcom's notice to exempt the use of automotive SRR equipment at 79 GHz from wireless telegraphy licensing by making the final Regulations. Section 3 of this document sets out the extent of application, scope and effect of the Regulations. A Regulatory Impact Assessment (RIA) for the Regulations is available in section 4. The

RIA sets out the risks, costs and benefits of the measures provided for in the Regulations and the effects that these measures may have on the costs to business.

Section 2

Ofcom's Decision

Background to Ofcom's decision

2.1 Information communications technologies and intelligent road safety systems such as automotive short-range radar equipment (SRR) have been identified by the European Commission's (EC) eSafety initiative[4] as a significant tool for the improvement of road safety in Europe and as one of a number of measures that could address the overall transport policy goal for reducing road fatalities in Europe by half by 2010[5].

2.2 The Commission's policy includes the development and operation of SRR equipment in new vehicles sold within the common market at the earliest date. However, for this to happen, it is necessary to identify and make available harmonised frequency bands at a community level in order to provide confidence to the industry to make the appropriate investments.

2.3 Within this context, the EC issued a mandate[6] to the European Conference of Postal and Telecommunications Administrations (CEPT) to harmonise spectrum to facilitate a coordinated EU introduction of automotive SRR systems. As a result of that mandate, the 79 GHz band, covering 77-81 GHz, has been identified by the CEPT as the most suitable band for the permanent development and deployment of SRR equipment. Following the results of that work the EC adopted a decision on the harmonisation of radio spectrum in the 79GHz range for the use of automotive SRR equipment in the Community[7] (the 'Decision'). The Decision is available at Annex 4 to this document.

2.4 The Decision designates the use of SRR in the 79 GHz band in order to encourage the industry to deploy automotive SRR equipment that can operate on that band.

2.5 In the United Kingdom (U.K), the relevant authority that has the power to implement the measures provided for in the Decision into national law is Ofcom. Ofcom makes and applies the United Kingdom Plan for Frequency Authorisation ('U.K.FAP') under section 153 of the Communications Act 2003.

2.6 Ofcom is also responsible for granting wireless telegraphy licences under the Wireless Telegraphy Act 1949 (the '1949 Act') and for making regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 1 of the 1949 Act it is an offence to install or use equipment to transmit without holding a licence granted by Ofcom, unless the use of such equipment is exempted.

2.7 In the consultation document Ofcom expressed the view that because "users" of SRR equipment would be vehicle drivers, licensing was impractical and cumbersome. If a licensing approach were adopted the driver of each vehicle with SRR equipment

[4] http://europa.eu.int/information_society/programmes/esafety/index_en.htm

[5] Commission Communication on a European Road Safety Action Programme, COM(2003)311, June 2nd,2003 at http://europa.eu.int/comm/transport/road/library/rsap/com_2003_0311_en.pdf , and Council Conclusions on the European Road Safety Action Programme, June 5th, 2003

[6] Mandate to CEPT to harmonise radio spectrum to facilitate a coordinated EU introduction of automotive short-range radar systems, August 5th 2003, at http://europa.eu.int/information_society/topics/radio_spectrum/docs/pdf/mandates/rscom0315_mandate_srr.pdf

[7] Decision 2004/545/EC at http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/l_241/l_24120040713en00660067.pdf

installed in it in the U.K. would need a wireless telegraphy licence in order to use the equipment. Further, licence exemption was proposed as the appropriate way forward because CEPT's sharing studies showed that SRR equipment can co-exist with other services which are currently deployed on that band. Therefore, Ofcom was and is still of the view that there is no need to impose licensing in order to avoid the effects of harmful interference on other users of that band.

2.8 However, Ofcom made it clear that designating the 79 GHz band for licence exempt use by SRR equipment did not result in any exclusion of other uses of this band in the future (designation on a 'non-interference and non-protected basis'). In other words, under these Regulations users should bear in mind that they will be sharing the relevant spectrum with present and future users (either licensed or licence-exempted). Present users include amateur, amateur satellite, radio astronomy, government and radiolocation users.

2.9 Ofcom received 6 non-confidential responses to our proposals, which are published on Ofcom's website and can be viewed at: http://www.ofcom.org.uk/consult/condocs/radar/responses/. In principle, the respondents did not disagree with Ofcom's proposals however they raised the following main points:

i. That Footnote EU35 of the European Frequency Tables[8], which stated that *'the band 75.5-76 GHz is in Europe also allocated to the Amateur and Amateur Satellite services after year 2006'*, was acknowledged and implemented in the UK Frequency Allocation Tables and the Schedule for UK Radio Amateurs (BR68). In particular, that the band 75.5-76 GHz would continue to be available and allocated to the Amateur services on a primary basis beyond 2006;

ii. that Ofcom should make it clear that, as stated in Article 2c of the 2004/454/EC Decision the use of SRR equipment would be exempted on a 'non- interference and non-protected' basis so manufacturers and users could properly assess liability issues before deploying any such equipment; and

iii. that Ofcom took into account their views against the prospect of exempting the temporary use of SRR equipment at 24 GHz which is the Radio Amateurs' primary allocation and requested that consultations were held with UK Amateurs, Astronomers, Earth Resource, Meteorological and other weak signal flux users of the 24 GHz band prior to any decision of use of that band for SRR equipment.

2.10 Ofcom considered the above comments and responds that-

i. Ofcom is aware of Footnote EU35 of the European Frequency Tables and will take all necessary steps to permit Amateur and Amateur Satellite services in 75.5-76 GHz after 2006;

ii. in the consultation document Ofcom proposed to exempt the use of SRR equipment at 79 GHz from wireless telegraphy licensing on a 'non-interference and non-protected basis' as required by the 2004/454/EC Decision. In accordance with the requirements of the 2004/454/EC Decision and our proposals in the consultation document, the Regulations exempt the use of automotive SRR equipment which does not cause undue interference

[8] Footnote EU35 of the European Frequency Tables amended Footnote 5.559A of the European Frequency Tables

to other users of the 79 GHz frequency band (Regulation 4(c)). In addition, the 79 GHz frequency band is designated for use by SRR equipment in the U.K.FAP on a 'non-interference and non-protected' basis;

iii. Ofcom acknowledges the views expressed regarding the prospect of exempting the temporary use of SRR equipment at 24 GHz; however, this matter is outside the scope of this consultation exercise. Since technology for the 79 GHz band has not been commercially available yet, it was thought that an interim solution was necessary. Therefore, the CEPT identified the 24 GHz as a temporary solution which would enable the early introduction of automotive SRR equipment in the Community to meet the objectives of the e-Safety initiative, since technology is considered sufficiently mature for operation in that band. Subsequently, on 17 January 2005 2004, the European Commission after taking into account the CEPT's work on the compatibility between automotive SRR equipment and other uses of the 24 GHz band adopted a final decision which allows the temporary use of SRR equipment at 24GHz band, covering 21.65-26.65 GHz[9]. Ofcom will consult with interested parties on the implementation of the measures provided for in the relevant Decision including the exemption of the temporary use of automotive SRR equipment at 24 GHz in due course.

2.11 After the closure of the consultation and Ofcom had made its decision, Ofcom received a further response from QinetiQ. Although the points raised cannot be taken into account as part of this consultation we propose to include them in a future related consultation exercise later this year.

Ofcom's decision to exempt the use of automotive SRR equipment at 79 GHz from wireless telegraphy licensing

2.12 Ofcom makes the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005 (the ' Regulations') by exempting the establishment, installation and use of SRR equipment in the 79 GHz range from the requirement to hold a licence contained in section 1(1) of the 1949 Act. The Wireless Telegraphy Automotive Short Range Radars (Exemption) Regulations 2005 (no. 2005/353) will shortly be available from the HMSO website, and are copied in draft form for information in Annex 2 to this document.

2.13 A Regulatory Impact Assessment (RIA) for the Regulations is available in section 4. The RIA sets out the risks, costs and benefits of the measures provided for in the Regulations and the effects that these measures may have on the costs to business.

[9] The draft final Decision on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community is available at: http://forum.europa.eu.int/irc/DownLoad/k3eGAeJ_muGGdj71J-RI2uLkSskDDjYv4G8AjHclhSRTP0T_EhCZ9O01wToy3-pCszU-8DBF_/Acte%20circa%20EN.pdf

Section 3

General effect of the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005

The legislative framework

3.1 These Regulations are made under sections 1(1) of the 1949 Act and section 403(7) of the Communications Act 2003. According to these sections Ofcom can by regulations exempt the establishment, installation and use of wireless telegraphy equipment.

3.2 A copy of the final Regulations is set out in Annex 2 of this document.

Extent of application

3.3 The Regulations will apply in the United Kingdom and in the Channel Islands and Isle of Man. The Channel Islands and Isle of Man have been consulted.

Effect of the Regulations

3.4 SRR equipment is defined in the Regulations as equipment installed in a vehicle providing radar functions for collision mitigation and traffic safety applications.

3.5 The Regulations exempt users of SRR equipment operating in 79 GHz band from the requirement under section 1 of the 1949 Act to hold a wireless telegraphy licence. In accordance with the Regulations, the 79 GHz band is defined as the frequency range between 77 and 81 GHz. This will be beneficial to industry because it will be easier to market a product that does not need to be licensed. It will simplify the administrative process for end users and make the product more attractive as a result.

3.6 Also, the Regulations require that the maximum mean power density must not exceed the -3dBm/MHz effective isotropic radiated power (e.i.r.p.) associated with a peak limit of 55 dBm e.i.r.p and must be less than -9 dBm/MHz outside the vehicle in which it is installed.

3.7 The Decision 2004/545/EC requires that the 79 GHz band is designated for SRR equipment on a "non-interference and non-protected basis". The Decision defines that expression as meaning that "no harmful interference may be caused to other users of the band and that no claim may be made for protection from harmful interference received from other systems or services operators operating in the band". Therefore, the 79 GHz band is designated on that basis in the UKPFA.

3.8 These requirements are also reflected in the Regulations. The SRR equipment is exempted from licensing on the basis that it does not contribute to undue interference to wireless telegraphy to other users of the band by virtue of Regulation 5(1)(c) of the Wireless Telegraphy (Exemption) Regulations 2003. Under section 19(5) of the Wireless Telegraphy Act 1949, interference is not to be considered "undue" unless it is also harmful.

3.9 Under the Regulations (and the Wireless Telegraphy (Exemption) Regulations 2003) no legal protection from harmful interference by other users of the band is offered to SRR equipment (and other exempt equipment) and so the exemption is consistent with the "non-protected" requirement.

Section 4

Regulatory Impact Assessment –The Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005

4.1 The analysis presented in this section of this document, when read in conjunction with the rest of this document, represents a Regulatory Impact Assessment (RIA), as defined by section 7 of the Communications Act 2003 (the 'Act').

4.2 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 Act, which means that generally we have to carry out RIAs where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. In accordance with section 7 of the Act, in producing the RIA in this document Ofcom has had regard to such general guidance as it considers appropriate, including related Cabinet Office guidance.

4.3 The analysis presented in this section summarises the conclusions reached in the RIA presented in the December consultation document[10], after taking account of the comments received in the 5 non-confidential responses to the consultation document.

Proposal, purpose and intended effect

4.4 Ofcom is proposing to:

i. Designate the 79 GHz band for use by automotive short-range radar equipment (SRR); and

ii. Permit the use of SRR equipment without the need to hold a licence (i.e. national regulations will set the conditions for use).

4.5 The intended purpose of this measure is to facilitate the development and uptake of SRR equipment within the U.K., with a view to improving road safety through the use of intelligent road safety systems to both avoid and mitigate road accidents. These systems can, for example, provide collision warnings, warnings about excessive speed, or assist with safe driving when following another vehicle.

4.6 Research into the road safety initiatives has identified information communications technologies and intelligent road safety systems, such as those based around SRR equipment, as one of the most important tools in achieving the EC road safety goal of reducing road fatalities in Europe by half by 2010. With this in mind, the European Commission Decision 2004/545/EC has designated the 79 GHz band as the harmonised band for this equipment.

[10] The consultation document " Notice of Ofcom's proposals to exempt the use of automotive short-range radar users at 79 GHz form wireless telegraph licensing", 14 December 2004, is available at: http://www.ofcom.org.uk/consult/condocs/radar/

Benefits and costs

Designating 79GHz band for SRR equipment

4.7 The evidence presented in the RIA to the December consultation document suggested that significant benefits could accrue from the use of the 79 GHz spectrum to provide SRR equipment for use in intelligent vehicle safety (IVS) systems.

4.8 For example, Department for Transport (DFT) estimates of the value generated (i.e. benefits) from preventing road fatalities and injuries indicate that preventing only 1% of the casualties in the UK in 2002 would have been expected to benefit the UK economy and its citizens by £122 million (in 2002 prices). .

4.9 Based on estimates of the rate of uptake of road safety technology in new vehicles and assuming that SRR equipment may only be successful in stopping 5% to 10% of accidents involving vehicles with the equipment installed, the net present value of the benefits from using SRR were estimated to range form £139 to £279 million over the period 2010 to 2014.

4.10 Whilst the results presented above are only indicative in nature, as it is not possible to provide precise quantification of the reduction in road casualties which would be achieved through the use of SRR equipment in the 79 GHz band, the results obtained indicate that significant benefits can be achieved by relatively limited reductions in the number of accidents11.

4.11 In addition to the benefits generated for the UK economy through the reduction in road accidents, the proposed regulations will provide benefits to business by assisting in the development of IVS systems. The harmonisation of the use of this band throughout Europe will aid the generation of economies of scale in the production of the technology to the benefit of businesses and consumers.

4.12 In comparison to the benefits, the costs of regulating this band for use of SRR equipment are likely to be both minimal (in the short to medium term) and uncertain (in the longer term).

- Exemption regulations mean that no licence fees are levied so no costs to business arise from making the spectrum available on a licence exempt basis.
- Amateur users are also located in the 79 GHz band. These users are located at 75.5-76 GHz and Footnote EU35 of the European Frequency Tables permits future Amateur and Amateur Satellite services at this frequency. However, Ofcom is of the view that these services in 75.5-76 GHz will not be affected by the designation of the 79 GHz band for use by SRR equipment, since the band which is designated in the UKPFA for use by SRR equipment covers 77-81 GHz only.
- Technological developments are still required to facilitate alternative uses of this spectrum (including SRR), therefore there are unlikely to be many other possible users of this band in the short to medium term. This however, creates uncertainty about the possible future opportunity cost of allowing SRR usage in this band, as it is not possible to predict the value which could be generated by other future users of this spectrum.

[11] Further details on the benefits which may accrue from the use of SRR equipment in the 79GHz band are presented in the December consultation document.

Allowing licence exempt use of SRR equipment in the 79 GHz band

4.13 The users of SRR equipment within this band will be individual vehicle owners. Given the number of vehicles within the UK the cost of imposing a licensing regime on use of this band would be expected to involve significant costs, both on the licensing body and upon individual users. These costs could accrue from both administering the licensing regime and from a smaller reduction in casualties if licensing acted as a barrier to use of the technology.

4.14 These costs would need to be assessed against the possible benefits of licensing rather than allowing licence exempt use. There are two reasons to suggest that these benefits would be small in magnitude:

1. Firstly, studies predict that SRR use between 77-81 GHz can co-exist with other band users. Additionally, the licence exemption of SRR will be on a 'non-interference and non-protected basis'.
2. Secondly, in the longer-term, there are reasons to suggest that any interference that would be caused by this technology (both in terms of in-band and out-of-band interference) would be both minimal and transitory in nature: the radar equipment uses wide-band technology, the radar travels only limited distances, and (expect in the vicinity of busy roads) will be present in a particular locality for a limited period of time (as a vehicle passes through).

4.15 This suggest that, in qualitative terms, the costs of a licensing regime would be expected to outweigh the benefits of licensing rather than allowing licence exempt use.

Risk assessment

4.16 The RIA to the December consultation document identified a number of risks involved in Ofcom's proposals. However, concluded that the only significant risk was that, by doing nothing, the development and uptake of SRR equipment, and the IVS systems which use it, would be significantly hampered. This could impose significant costs in terms of additional road fatalities and injuries. Other costs which could be imposed by doing nothing could be a lack of harmonisation on the spectrum used by this technology and the resulting limitation on both the rate of development and uptake of these systems, and on the road safety benefits for UK citizens when travelling throughout the EU.

4.17 The other risks identified in the RIA to the December consultation document were shown to be either limited in nature or to have mitigating factors.

4.18 A further risk highlighted by the comments on the consultation document is the risk that the evidence supporting co-existence between SRR, Amateur Radio and other use understates the possible levels of interference. Ofcom considers that this risk is mitigated by the 'non-interference and non-protected' basis of the licence exemption for SRR.

Conclusions

4.19 Indicative estimates of the benefits which may accrue from use of SRR equipment in the 79 GHz band suggest that these benefits are significant. However, the costs of this regulating are likely to be both minimal (in the short to medium term) and uncertain (in the longer term).

4.20 Qualitative assessment of the likely costs and benefits from allowing licence exempt use of the 79 GHz band rather than imposing a licensing regime suggests that the costs of a licensing regime would be expected to outweigh the benefits of licensing rather than allowing licence exempt use. Further, use of exemption regulations mean that no licence fees are levied so no costs to business arise from making the spectrum available on a licence exempt basis.

4.21 Analysis of the risks involved in the proposed regulation of this band indicates that the risk of doing nothing may be significant. Other risks identified with the proposal have mitigating factors and/or are limited in nature hence are not viewed to be significant.

Annex 1

List of respondents to the consultation

1. Chelmsford Amateur Radio Society
2. UK Microwave Group
3. C H Towns
4. John Hazel; and
5. British Amateur Television Club and AMSAT-UK (joint response)

Annex 2

Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005

DRAFT

STATUTORY INSTRUMENTS

2005 No. XXXX

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005

Made - - - - 2005

Coming into force - - 2005

Whereas the Office of Communications ("OFCOM") have under section 403(4)(a) of the Communications Act 2003([12]) ("the 2003 Act"), as applied by section 16(1A) of the Wireless Telegraphy Act 1949([13]) ("the 1949 Act"), given notice of their proposal to make these Regulations and, under section 403(4)(b) of the 2003 Act, as applied by section 16(1A) of the 1949 Act, published notice of their proposal and have considered the representations made to them before the time specified in the notice([14]);

Now, therefore, OFCOM, in exercise of the powers conferred upon them by section 1(1) of the 1949 Act([15]) hereby make the following Regulations—

DRAFT

Citation and commencement

1. These Regulations may be cited as the Wireless Telegraphy (Automotive Short Range Radar) (Exemption) Regulations 2005 and shall come into force on [ ] 2005.

Interpretation

2. In these Regulations —

[12] 2003 c. 21
[13] 1949 c. 54
[14] Section 16(1A) of the 1949 Act does not extend to the Channel Islands and therefore the procedures set out in section 403 of the 2003 Act, which it applies, are not requirements in so far as these Regulations extend to the Channel Islands.
[15] Section 1(1) was extended to the Channel Islands by S.I. 1952/1900, as amended by S.I. 1967/1279, S.I. 1974/691 and S.I. 1997/284 and to the Isle of Man by S.I. 1952/1899, as amended by S.I. 1967/1280 and S.I. 1997/285. Section 1(1) was amended by the Communications Act 2003 (c. 21) by section 406 and Schedule 17, paragraphs 6(1) and (2). These amendments were extended to Jersey by S.I. 2003/3197 article 6, to the Bailiwick of Guernsey by S.I. 2003/3195 article 6 and to the Isle of Man by S.I. 2003/3198 article 6. There are other amendments to section 1(1) not relevant to these Regulations.

a. "automotive short range radar equipment" means equipment providing vehicle radar functions for collision mitigation and traffic safety applications;

b. "dBm" means decibel milliWatt;

c. "dBm/MHz" means decibel milliWatt per megahertz; and

d. "eirp" means effective isotropically radiated power.

Exemption

3. Subject to regulation 4, the establishment or installation of automotive short range radar equipment in a vehicle and the use of automotive short range radar equipment so established or installed is hereby exempt from the provisions of section 1(1) of the Wireless Telegraphy Act 1949.

4. The exemption provided for in regulation 3 shall be limited to automotive short range radar equipment which —

a. operates within the frequency band between 77 gigahertz and 81 gigahertz;

b. emits a mean power density no greater than —

i. i-3 dBm/MHz eirp associated with a peak limit of 55 dBm eirp; and

ii. -9 dBm/MHz eirp outside the vehicle in which it is established or installed; and

c. does not cause undue interference to other users of the frequency band between 77 gigahertz and 81 gigahertz.

Chief Executive of the Office of Communications

For and by authority of the Office of Communications

DRAFT

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations exempt the establishment or installation of automotive short range radar equipment in a vehicle and the use of automotive short range radar equipment so established or installed from the requirement to be licensed under section 1(1) of the Wireless Telegraphy Act 1949 (c. 54). The equipment must operate within the frequency band between 77 gigahertz and 81 gigahertz, meet the mean power density requirements and not cause undue interference to other users of the frequency band.

These Regulations implement the Commission Decision of 8th July 2004 on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment in the Community (2004/545/EC).

A full regulatory impact assessment and report of the effect that these Regulations will have on the costs to business is available to the public from the OFCOM Library at Riverside House, 2a Southwark Bridge Road, London SE1 9HA (Tel: 020 7981 3000) or on the OFCOM internet web site at www.ofcom.org.uk. Copies of the report have also been placed in the libraries of both Houses of Parliament.

Annex 3

Decision 2004/545/EC

Commission Decision of 8 July 2004 on the harmonisation of radio spectrum in the 79GHz range for the use of automotive short-range radar equipment in the Community

L 241/66 EN Official Journal of the European Union 13.7.2004

COMMISSION

COMMISSION DECISION

of 8 July 2004

on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment in the Community

(notified under document number C(2004) 2591)

(Text with EEA relevance)

(2004/545/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) [1], and in particular Article 4(3) thereof,

Whereas:

(1) In its Communication to the Council and the European Parliament of 15 September 2003, entitled 'Information and Communications technologies for safe and intelligent vehicles' [2], the Commission announced its intention to improve road safety in Europe, to be known as the eSafety initiative. Such improvements can in particular be achieved by using new information communications technologies and intelligent road safety systems such as automotive short-range radar equipment (SRR). The Council also called on 5 December 2003, in its Conclusions on road safety [3], for the improvement of vehicle safety through the promotion of new technologies such as electronic safety.

(2) The rapid and coordinated development and deployment of short-range radar within the Community requires that harmonised radio frequency bands be available without delay and on a stable and permanent basis, so as to provide confidence to industry to make the necessary investments.

(3) With a view to such harmonisation, a mandate [4] was issued on 5 August 2003 by the Commission to the European Conference of Postal and Telecommunications Administrations (CEPT), pursuant to Article 4(2) of Decision 676/2002/EC, to harmonise radio spectrum and to facilitate a coordinated introduction of automotive short-range radar (SRR) systems.

(4) As a result of that mandate, the 79 GHz range band has been identified by the CEPT, acting through its Electronic Communications Committee (the ECC), as the most suitable band for long-term and permanent development and deployment of short-range radar. The ECC has concluded that operation of the band should proceed on a non-interference and non-protected basis, in accordance with Radio Regulations adopted by the International Telecommunications Union and pursuant to technical specifications set out by the ECC in its decision of 19 March 2004.

(5) The results of the work carried out pursuant to the mandate given to CEPT as regards identification of a long-term and permanent band for short-range radar are acceptable and should be made applicable in the Community in order to ensure the availability and efficient use of the radio spectrum necessary for the establishment and functioning of the internal market. The use of short-range radar in the 79 GHz band should therefore be allowed as soon as possible and by 1 January 2005 at the latest so as to encourage the industry to develop, manufacture and market SRR equipment operating on that band.

[1] OJ L 108, 24.4.2002, p. 1.
[2] COM(2003) 542.
[3] 15058/03 TRANS 307.
[4] Mandate to CEPT to harmonise radio spectrum to facilitate a coordinated EU introduction of automotive short-range radar systems.

(6) Short-range radar should be used with due consideration to health and safety of the user and any other person, taking in particular account the Council Recommendation 1999/519/EC of 12 July 1999 on the limitation to exposure of the general public to electromagnetic fields (0 to 300 GHz) [1] and Article 3.1(a) of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity [2].

(7) The measures provided for in this Decision are in accordance with the opinion of the Radio Spectrum Committee,

HAS ADOPTED THIS DECISION:

Article 1

The purpose of this Decision is to harmonise the conditions for the availability and efficient use of the 79 GHz range radio spectrum band for automotive short-range radar equipment.

Article 2

For the purposes of this Decision, the following definitions shall apply:

(a) '79 GHz range radio spectrum band' shall mean the frequency range between 77 and 81 gigahertz;

(b) 'automotive Short-Range Radar equipment' shall mean equipment providing road vehicle based radar functions for collision mitigation and traffic safety applications;

(c) a 'non-interference and non-protected basis' shall mean that no harmful interference may be caused to other users of the band and that no claim may be made for protection from harmful interference received from other systems or services operators operating in that band.

Article 3

The 79 GHz range radio spectrum band shall be designated and made available for automotive short-range radar equipment as soon as possible and no later than 1 January 2005, on a non-interference and non-protected basis.

The maximum mean power density shall be of − 3 dBm/MHz effective isotropic radiated power (e.i.r.p.) associated with a peak limit of 55 dBm e.i.r.p.

The maximum mean power density outside a vehicle resulting from the operation of one short-range radar shall not exceed − 9 dBm/MHz e.i.r.p.

Article 4

This Decision is addressed to the Member States.

Done at Brussels, 8 July 2004.

For the Commission

Erkki LIIKANEN

Member of the Commission

[1] OJ L 199, 30.7.1999, p. 59.
[2] OJ L 91, 7.4.1999, p. 10; Directive as amended by Regulation (EC) No 1882/2003 (OJ L 284, 31.10.2003, p. 10).