



# Notice of proposals to make the Wireless Telegraphy (Licence Charges) Regulations 2011

Consultation

Publication date: 19 November 2010

Closing Date for Responses: 23 December 2010



# Contents

<b>Section</b>		<b>Page</b>
1	Executive summary	3
2	Notice	5
3	New licence classes	7
4	Changes to current licence charges	15
5	Editorial changes	23
6	Simplifying the regulatory framework	27
7	General effect of the Wireless Telegraphy (Licence Charges) Regulations 2011	28
 <b>Annex</b>		 <b>Page</b>
1	Responding to this consultation	30
2	Ofcom's consultation principles	32
3	Consultation response cover sheet	33
4	Consultation question	35
5	Impact Assessment	36
6	Proposed Regulations	42
7	Glossary	77

## Section 1

# Executive summary

- 1.1 This document consults on draft regulations to make the Wireless Telegraphy (Licence Charges) Regulations 2011 (the “Proposed Regulations”). The Proposed Regulations would revoke and replace the Wireless Telegraphy (Licence Charges) Regulations 2005 (as amended) (“the 2005 Regulations”) and the regulations that amend the 2005 Regulations.
- 1.2 The Proposed Regulations set out the licence charges (fees) for classes of wireless telegraphy licence other than those awarded by auction. Many of the charges are unchanged from the 2005 Regulations. The Proposed Regulations would, however, implement changes that introduce ‘Administered Incentive Pricing’ (“AIP”) whereby prices for annual licence fees are set above administrative costs to reflect a range of spectrum management objectives), for certain Maritime licence classes. In addition they would also reduce the rate for Business Radio Band I users and make a number of other amendments. These changes have been subject to prior consultation, in line with Ofcom’s consultation principles.
- 1.3 The Proposed Regulations would make the following changes that:
  - introduce charges for new licence classes;
    - Satellite (Complementary Ground Components of a Mobile Satellite System);
    - Coastal Station Radio (UK) Area Defined;
    - Coastal Station Radio (International) Area Defined.
  - amend the current charges for the following licence classes:
    - a number of Maritime licence classes;
    - Business Radio users in Band I (55.75 to 68 MHz);
    - Analogue television broadcasting;
    - Satellite (Transportable Earth Station).
  - update references (but not the fees) to licence classes (removing some), including:
    - Business Radio licence classes;
    - Satellite (Transportable Very Small Aperture Terminal) (TVSAT);
    - Citizen’s Band radio (CB Radio);
    - Scanning Telemetry.

- 1.4 We believe that the proposed revocation and replacement of the 2005 Regulations and their amending regulations would simplify the legislation and reduce the regulatory burden on stakeholders.
- 1.5 In accordance with the requirements of section 122(4) and (5) of the Wireless Telegraphy Act 2006 this document gives notice of our intention to make the Proposed Regulations. Comments on the Proposed Regulations are invited by **5pm** on **23 December 2010**. Subject to consideration of responses we intend to bring the new Regulations into force by April 2011.
- 1.6 An impact assessment for the Proposed Regulations is available at Annex 5 to this document. The Proposed Regulations are included in this document at Annex 6. Further copies may be obtained from [www.ofcom.org.uk](http://www.ofcom.org.uk) or from Ofcom at Riverside House, 2a Southwark Bridge Road, London SE1 9HA.

## Section 2

# Notice

## Introduction

- 2.1 Ofcom is responsible for authorising civil use of the radio spectrum and achieves 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 12 of the WT Act we must prescribe in regulations the sums payable in respect of wireless telegraphy licences other than those awarded by auction.
- 2.2 The WT Act enables us to recover the cost of managing WT Act licences by prescribing regulations under section 12 but, under section 13, it also permits the use of market mechanisms. For non-auctioned spectrum, the WT Act permits us to use ‘Administered Incentive Pricing’ (“AIP”), whereby prices for annual licence fees are set above administrative costs to reflect a range of spectrum management objectives. This power goes to discharging a range of duties under section 3 of the WT Act which require us to efficiently manage the radio spectrum.
- 2.3 We have recently consulted on the factors and principles that influence the way that we determine charges for spectrum in general, including both AIP-based fees and fees which are set to recover a contribution to our costs. We are reviewing the responses to the Strategic Review of Spectrum Pricing (SRSP)<sup>1</sup> and will be publishing our statement shortly. For the purposes of this consultation the SRSP does not affect the changes that we are proposing to make, though we would, if appropriate, consider making further fees regulations in future if appropriate in light of the outcome of the SRSP.
- 2.4 Before making any regulations we are required by section 122(4) of the WT Act 2006 to give notice of our proposal to do so. We must give that notice to those we think representative of the persons likely to be affected by the implementation of the proposal, and publish notice of our proposal in the way we think appropriate for bringing it to the attention of those persons who we think are likely to be affected by it. We have to consider any representations that are made to us about our proposal.
- 2.5 Under section 122(5), the notice must state that Ofcom propose to make the regulations in question, set out their general effect, specify an address from which a copy of the proposed regulations or order may be obtained, and specify a time before which any representations with respect to the proposal must be made to Ofcom. That time must be at least one month beginning with the day after that on which the notice is given or published.
- 2.6 This document gives notice of our proposal to make the Proposed Regulations. It is given to those we think representative of the persons likely to be affected by the Proposed Regulations, and published on Ofcom’s website. Those who wish to do so have until **5pm on 23 December 2010** to make representations on our proposal. This document sets out the general effect of the Proposed Regulations in particular in section 7, but also in more detail in sections 3 – 6. A copy of the Proposed Regulations is in Appendix 6 of this document, and further copies may be obtained

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<sup>1</sup> <http://www.ofcom.org.uk/radiocomms/ifi/srsp/>

from [www.ofcom.org.uk](http://www.ofcom.org.uk) or from Ofcom at Riverside House, 2a Southwark Bridge Road, London SE1 9HA.

- 2.7 Unless stated in the following sections, all existing licence charges will remain the same. This consultation is about whether the Proposed Regulations correctly give effect to the policy proposals as published in the statements referred to in this document and to the other intentions set out in this document. We seek responses to this consultation in that respect, not on the underlying policy decisions we have already made.

## Document structure

- 2.8 The document is structured as follows:
- Section 3 contains the proposals for the licence charges for new licence classes;
  - Section 4 outlines changes to some existing licence class fees;
  - Section 5 lists the administrative amendments;
  - Section 6 details our proposal to revoke previous regulations;
  - Section 7 sets out the general effects of the Proposed Regulations;
  - Annexes 1 to 3 provide information on our approach to consultation;
  - Annex 4 provides a summary of all the consultation questions;
  - Annex 5 details the impact assessment of the options considered;
  - Annex 6 has a copy of the Proposed Regulations; and
  - Annex 7 provides a glossary of terms.

## Next steps

- 2.9 Following the publication of this consultation document, stakeholders are invited to provide their feedback. The deadline to submit responses to us is 5pm 23 December 2010. We expect to release a Statement on this consultation by March 2011, having taken into account the stakeholder responses to our proposals and bring into force the regulations by April 2011.

## Section 3

# New licence classes

3.1 The following section highlights our proposals to implement in the Proposed Regulations charges for a number of new licence classes. These are the result of previous policy consultations undertaken by Ofcom (as described below). The new licence classes that we are introducing, and for which the Proposed Regulations would set licence charges, are listed below:

- Satellite (Complementary Ground Components of a Mobile Satellite System);
- Coastal Station Radio (UK) Area Defined; and
- Coastal Station Radio (International) Area Defined.

### Mobile Satellite System Complementary Ground Components (2 GHz)

3.2 The award of the 2 GHz spectrum to Mobile Satellite System (MSS) operators was announced on 14 May 2009<sup>2</sup> under a European selection and authorisation process provided for by Decision No 626/2008/EC (the “EC MSS Decision”),<sup>3</sup> made under Article 95 of the European Treaty that was adopted jointly by the European Parliament and Council and published in July 2008. Inmarsat Ventures Ltd and Solaris Mobile Ltd were selected under this process. Decision No. 2009/449/EC of 13 May 2009 (the “EC MSS Selection Decision”) confirmed the selection of both operators and identified the specific frequency bands awarded to each operator.

3.3 In conjunction with the EC MSS Decision, the EC MSS Selection Decision requires that Member States grant the selected MSS operators an authorisation for Complementary Ground Components (GGC) for their territory, with the terms and conditions of such authorisations to be determined by national and community law as well as the EC MSS Decision.

3.4 On 3 November 2008 we published a consultation “Authorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systems”<sup>4</sup> looking at addressing the arrangements for authorising the use of spectrum in the UK for terrestrial mobile networks CGC that complement 2 GHz MSS operating in the frequency bands 1980 to 2010 MHz and 2170 to 2200 MHz.

3.5 On 17 July 2009 we published a statement on the licensing and charging of 2 GHz MSS CGC.<sup>5</sup> In that statement we said that it was appropriate to base the AIP rate on the potential for terrestrial mobile type applications. We therefore decided to set a rate of £554,000 per 2 x 1 MHz renewed every 12 months.

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<sup>2</sup>

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/770&format=HTML&aged=0&language=EN&guiLanguage=en>

<sup>3</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:172:0015:0024:EN:PDF>

<sup>4</sup> <http://www.ofcom.org.uk/consult/condocs/cgcs2/cgcs2.pdf>

<sup>5</sup> <http://www.ofcom.org.uk/consult/condocs/cgcs2/statement/2ghzstatement.pdf>



## Coastal Station Radio Area Defined

3.6 We first consulted on “Applying spectrum pricing to the Maritime and Aeronautical sectors” in our consultation document of that title in 2008 (the “2008 AIP Consultation”). We consulted on detailed proposals to change the licensing of Maritime radio licence classes in our document “Applying spectrum pricing to the maritime sector, and new arrangements for the management of spectrum used for radar and aeronautical navigation aids” published on 13 August 2009 (the “2009 AIP Consultation”).<sup>6</sup> In our statement of 15 June 2010<sup>7</sup> (the “Maritime AIP Statement”) we outlined a number of changes we were making to maritime licence fees and included proposals to introduce two new licence classes, these were:

- Coastal Station Radio (UK) Area Defined; and
- Coastal Station Radio (International) Area Defined.

3.7 This new licence class will permit use of a given channel(s) anywhere within a defined geographic area. The charging regimes for both licence classes are different and are explained below in greater detail, though in all cases the minimum charge would be £75.

3.8 The licence payment interval is 12 months. However temporary licences are available for one-twelfth of the cost of an annual licence per month or part month subject to a minimum fee of £20.

## Coastal Station Radio (UK) Area Defined

3.9 Paragraph 4.6 of the Maritime AIP Statement explained that AIP should apply to a number of channels allocated for Maritime use (though with some exceptions referred to elsewhere in the Maritime AIP Statement and this document (see paragraph 3.12 below, for example)).

3.10 The licence charge is calculated according to the location where the spectrum is assigned based on 50km x 50km National Grid Reference (NGR) square(s) (see Figure 1).<sup>8</sup> NGR squares are classified as either High, Medium or Low population density and priced accordingly. Table 1 sets out the cost for each population area and the UK as a whole. There are no differences in principle in the pricing regime for simplex and duplex channels ( based on the standard charge rate for a 1 x 6.25 kHz channel of spectrum, a licensee deploying 2 x 25 kHz (duplex) channels would attract a fee of eight times of the standard fee rate).

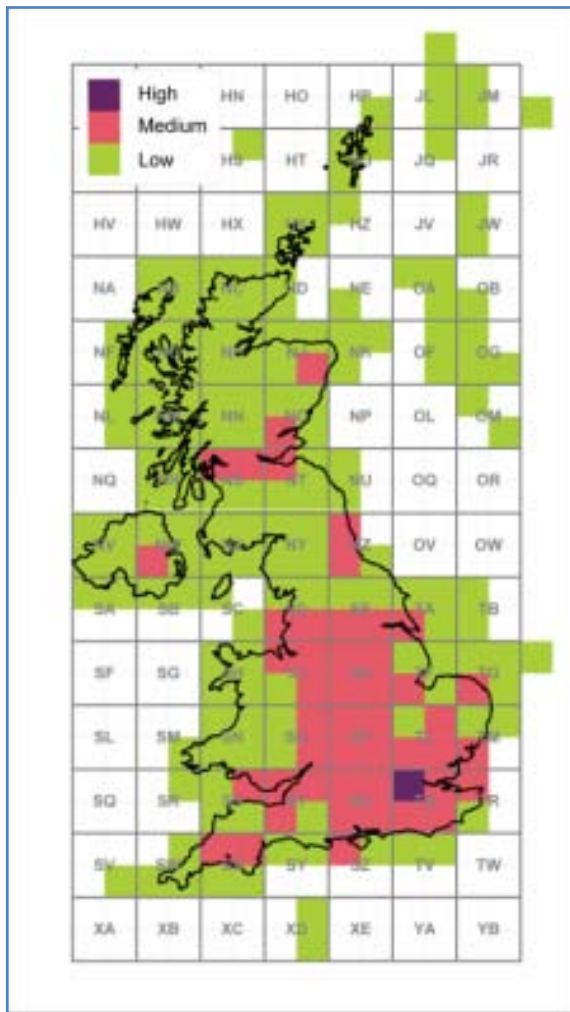
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<sup>6</sup> [http://stakeholders.ofcom.org.uk/binaries/consultations/aip\\_maritime/summary/aipcondoc.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/aip_maritime/summary/aipcondoc.pdf)

<sup>7</sup> [http://stakeholders.ofcom.org.uk/binaries/consultations/aip\\_maritime/statement/statement.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/aip_maritime/statement/statement.pdf)

<sup>8</sup> This is a similar method to the charging of Business Radio Area Defined licences

**Figure 1: Coastal Station Radio (UK) population density map**



Source: Ofcom

**Table 1: Coastal Station Radio (UK) Area Defined fee calculations**

Area	Fee per 6.25 kHz channel
UK	£2062.50
50 x 50 km unit in a High population area	£247.50
50 x 50 km unit in a Medium population area	£31.25
50 x 50 km unit in a Low population area	£3

Source: Ofcom

3.11 The example below demonstrates how the fees would apply.

*Example:*

*An Area Defined simplex licence for UK wide use would be £8250 (for a 1 x 25 kHz channel)*

*An Area Defined duplex licence for a Medium population area would be £250 (for a 2 x 25 kHz channel)*

**Channels attracting no end user fee**

3.12 In accordance with the conclusions set out in paragraphs 4.6 and 4.7, and the decision set out in paragraph 4.29, of the Maritime AIP statement, licences to use

certain channels (if licensed under a Coastal Station Radio (UK) Area Defined licence) would attract no charge to end users.

3.13 In particular, for Coastal Station Radio UK Area Defined licences the frequencies listed below will not attract a fee to end users providing they are used solely to assist Her Majesty's Coastguard or oil pollution control activities:

- 156.0/160.0 MHz (Channel 0); and
- 161.225 MHz (Channel 00).

### **Coastal Station Radio (International) Area Defined**

3.14 Paragraphs 4.3 to 4.5 of the Maritime AIP Statement laid out our conclusions on charging for internationally recognised channels. Unlike Coastal Station Radio (UK) Area Defined, the licence charges will differ between simplex and duplex channels to reflect the level of demand. The difference in charging regimes is detailed below.

#### Simplex

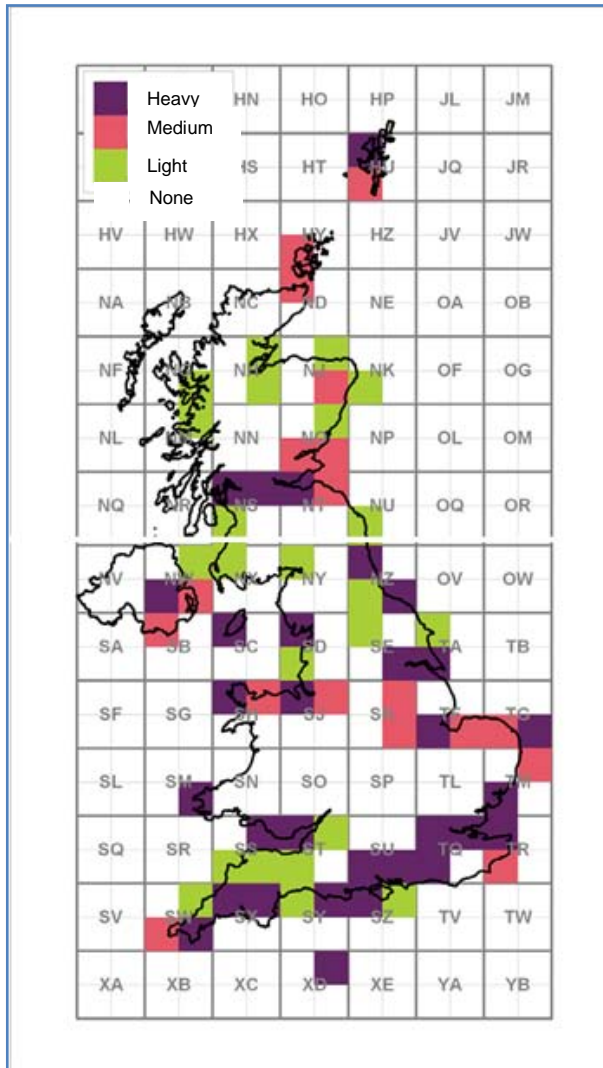
3.15 There are a number of international simplex channels allocated for port operation and movement.<sup>9</sup> Paragraph 4.3 of the Maritime AIP Statement referred to our conclusion that demand for the following channels exceeds supply: 156.425 MHz (channel 68), 156.450 MHz (channel 9), 156.475 MHz (channel 69), 156.550 MHz (channel 11), 156.575 MHz (channel 71), 156.600 MHz (channel 12), 156.700 MHz (channel 14) and 156.725 MHz (channel 74). Our further conclusion was that these channels would be subject to licence fees based on AIP.

3.16 These AIP rates are based on congestion and not population coverage like Coastal Station Radio (UK) Area Defined licences. The congestion map of for the simplex channels is shown in Figure 2. This sets out four congestion types: Heavy congestion (purple), Medium congestion (red), Light congestion (green) and non- congestion (white).

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<sup>9</sup> As defined in Appendix 18 of the Radio Regulations 2008

**Figure 2: Coastal Station Radio (International) Area Defined congestion density map**



Source: Ofcom

3.17 Based on the NGR location the fees in Table 2 would apply.

**Table 2: Coastal Station Radio (International) Area Defined Simplex fee calculations**

Area	Fee per 6.25 kHz channel
UK	£2318.75
50 x 50km unit in a Heavy Congestion Area	£55
50 x 50km unit in a Medium Congestion Area	£21.25
50 x 50km unit in a Light Congestion Area	£11.25
50 x 50km unit in a non-congested area	£0

Source: Ofcom

3.18 The example below demonstrates how the fees would apply.

*Example:*

*An Area Defined licence with UK wide use will be £9275 (for a 1 x 25 kHz channel)*

*An Area Defined licence for two High Congestion Areas will be £440 (for a 1 x 25 kHz channel)*

*An Area Defined licence for five no material excess demand areas will be £75 (minimum charge for a 1 x 25 kHz channel)*

### *Channels 87 and 88*

3.19 In addition to the eight channels listed in paragraph 3.15 the Radio Regulations also specify that 157.375 MHz (Channel 87) and 157.425 MHz (Channel 88) may be used for port operations. At present, few ships currently have installed equipment that operates on these channels and as a result there is little congestion. As there is no evidence yet of congestion we are not proposing to apply an AIP based rate to these channels. We propose instead apply a cost-based recovery charge. The charge would be calculated by the number of 50 x 50 NGR squares that the licensee has per channel. And, the charge for a simplex channel would be the same as for a duplex channel covering the same area. The proposed charges are set out in Table 3 below and examples of the charge in practice in paragraph 3.23 below. We will continue to review use in these channels and currently intend that we will apply AIP rates when there is sufficient use in the channels.

**Table 3: Coastal Radio Station (International) Area Defined Simplex Channels 87 and 88 fee calculations**

<b>Area</b>	<b>Fee per 6.25 kHz channel</b>
1 to 4 land/sea grid squares	£18.75
5 to 8 land/sea grid squares	£37.50
9 to 12 land/sea grid squares	£56.20
13 to 16 land/sea grid squares	£75.00
17 to 20 land/sea grid squares	£93.75
21 to 24 land/sea grid squares	£112.50
More than 24 land/sea grid squares	£125.00

Source: Ofcom

### *Channels attracting no end user fee*

3.20 For similar reasons to those set out in paragraph 3.12, there are a number of channels that will not attract any end user fees. For Coastal Station Radio (International) Area Defined simplex licences these are the following channels:

- 156.300 MHz (Channel 6);
- 156.375 MHz (Channel 67) (providing it is used solely to assist Her Majesty's Coastguard or oil pollution control activities);
- 156.400 MHz (Channel 8);
- 156.500 MHz (Channel 10 (providing it is used solely to assist Her Majesty's Coastguard or oil pollution control activities);

- 156.525 MHz (Channel 70);
- 156.625 MHz (Channel 72);
- 156.650 MHz (Channel 13);
- 156.675 MHz (Channel 73 (providing it is used solely to assist Her Majesty's Coastguard or oil pollution control activities);
- 156.750 MHz (Channel 15);
- 156.775 MHz (Channel 75);
- 156.800 MHz (Channel 16);
- 156.825 MHz (Channel 76);
- 156.850 MHz (Channel 17); and
- 156.875 MHz (Channel 77).

### Duplex

3.21 Paragraph 4.5 of the Maritime AIP Statement advised that we were not going to introduce an AIP-based rate for these channels and instead will price duplex channels based on cost-recovery basis.

3.22 The licence charge is calculated by the number of 50 x 50 NGR squares that the licensee has per 2 x 25 kHz channel, with a maximum fee of £ 500 for a 2 x 25 kHz assignment. Table 4 sets out the rates that will apply to international duplex.

**Table 4: Coastal Radio Station (International) Area Defined Duplex fee calculations**

Area	Fee per 6.25 kHz channel
1 to 4 land/sea grid squares	£75
5 to 8 land/sea grid squares	£150
9 to 12 land/sea grid squares	£225
13 to 16 land/sea grid squares	£300
17 to 20 land/sea grid squares	£375
21 to 24 land/sea grid squares	£450
More than 24 land/sea grid squares	£500

Source: Ofcom

3.23 The example below demonstrates how the fees would apply.

*Example:*

*An Area Defined licence for 6 50 x 50 km NGR squares use will be £150 (for a 2 x 25 kHz channel or a 1 x 25kHz simplex channel using channel 87 or 88)*

*An Area Defined licence for 30 50 x 50 km NGRs use will be £500 (for a 2 x 25 kHz channel or a 1 x 25kHz simplex channel using channel 87 or 88)*

*Channels attracting no end user fee*

3.24 For similar reasons to those set out in paragraph 3.13, there are a number of channels that will not attract any end user fees. For Coastal Station Radio (International) Area Defined duplex licences these are the following channels:

- 157.150/161.750 MHz (Channel 23);
- 157.225/161.825 MHz (Channel 84); and
- 157.325/161.925 MHz (Channel 86).

## Section 4

# Changes to current licence charges

4.1 The following section outlines our proposals to change the regulations in relation to fees charged for some existing licence classes. These are:

- Automatic Identification System (AIS);
- Coastal Station Radio (UK);
- Coastal Station Radio (International);
- Coastal Station Radio (Marina);
- Coastal Station Radio (Training School);
- Temporary Coastal Station Radio (Marina);
- Temporary Coastal Station Radio (International);
- Temporary Coastal Station Radio (UK);
- Differential Global Position System;
- Maritime Radio (Suppliers and Demonstration);
- Business Radio Band I;
- Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts); and
- Satellite (Transportable Earth Station).

## Maritime sector licence changes

4.2 The 2008 AIP Consultation was intended to raise the issues associated with valuing and pricing this spectrum, and thereby stimulate debate on options for the role of licence fees in achieving optimal spectrum use for citizens and consumers. After reviewing responses to that consultation exercise and commissioning further external consultancy, we published more detailed proposals, with a full impact assessment, for pricing maritime VHF communications channels.

4.3 The 2009 AIP Consultation laid out detailed proposals in respect of maritime VHF communications channels and the revised proposals for spectrum used with radar and aeronautical navigation aids. We set out in Section 5 of the 2009 AIP consultation our reasons for proposing changes to the charges for certain maritime VHF communications channels. In sections 6 and 7 of the 2009 AIP consultation we set out our assessment and proposed conclusions about the different ways to set charges. In the Maritime AIP Statement we determined our intention to make the changes outlined in this section of this document.



## Automatic Identification System (AIS)

- 4.4 AIS is a broadcast transponder system operating in the VHF maritime mobile band. It is capable of sending a ship's navigation information to other ships and to shore. AIS transponder equipment is used on ships and aids to navigation (AtoNs), by Vessel Traffic Services (VTS) and by Maritime Competent Authorities.
- 4.5 Currently, AIS licences fall under their own, Automatic Identification System, licence class in the 2005 Regulations and incur a charge of £40. As outlined in paragraph 4.29 of the Maritime AIP Statement we are now making these free of charge.

## Coastal Station Radio (UK)

- 4.6 Paragraphs 4.21 to 4.25 of the Maritime AIP Statement set out the new charging regime for technically assigned Coast Station Radio (UK) licences. We are to change the current charges for Coastal Station Radio (UK) from a flat rate of £180 per channel per base station to a fee scale based on AIP. The calculation of the charge will be based on the same three area population density criteria as Coastal Station Radio (UK) Area Defined (see Figure 1). However in addition to population density, the base station's maximum effective radiated power (ERP) and the antenna height above ground level will also be taken into account. These factors are used as a determinant of the approximate coverage of the station.
- 4.7 Table 5 sets out the relevant factors and charges. "W" is the effective radiated power (ERP) measured in watts and "A" is the height of the antenna above the ground measured in metres. Depending on the outcome of these calculations, coverage will fall into one of three categories: Large coverage, Medium coverage and Small coverage.

**Table 5: Coastal Station Radio (UK) licence charges**

Geographic Area	Large coverage (Watts erp (P) and Antenna metres (A))  P > 5 and A > 10 or P ≤ 5 and A > 30	Medium coverage (Watts erp and (P) Antenna metres (A))  P ≤ 5 and 10 < A ≤ 30 or P > 5 and A ≤ 10	Small Coverage (Watts erp (P) and Antenna metres (A))  P ≤ 5 and A ≤ 10
High population	£70	£67.50	£25
Medium population	£62.50	£42.50	£21.25
Low population	£22.50	£20	£18.75

Source: Ofcom

- 4.8 These licences are subject to a 12 month payment interval with a minimum annual fee of £75. The Proposed Regulations make provision for temporary licences for one-twelfth of the cost of an annual licence per month or part month, subject to a minimum fee of £20. As a result of this we will be removing the separate Temporary Coastal Station (UK) licence class product.
- 4.9 The example below demonstrates how the new charges would apply.

*Example:*

*The licence for a base station in a Medium population (50 x 50 km NGR square) area with Medium Coverage use will be £170 (for a 2 x 12.5 kHz channel)*

### Channels attracting no end user fee

- 4.10 The channels set out in paragraph 3.13 will also not attract any end user fees when used for Coastal Station Radio (UK).

### Future licence charge increases

- 4.11 As outlined in Figure 4 of the Maritime AIP Statement the charges for high density areas will increase over the next three years. Table 6 below demonstrates the impact this will have on the rate for High and Medium coverage (low coverage does not incur any increase). The subsequent increases from 2012 onwards will be implemented in future regulations.

**Table 6: Future charges for Coastal Station Radio (UK) licences in High Population areas**

Coverage	2011	2012	2013
High population	£70	£127.50	£185
Medium population	£67.50	£92.50	£92.50

Source: Ofcom

### **Coastal Station Radio (International)**

- 4.12 The current licence charge of £100 per base station per channel is to be replaced. The new charging regime was outlined in paragraphs 4.13 to 4.20 of the Maritime AIP Statement (and is explained further below). The new licence charges will be similar to Coastal Station Radio (International) Area defined licences with different charges for simplex and duplex channels.
- 4.13 These licences are subject to a 12 month payment interval with a minimum annual fee of £75. The Proposed Regulations make provision for temporary licences for one-twelfth of the cost of an annual licence per month or part month, subject to a minimum fee of £20. As a result of this we will be removing the separate Temporary Coastal Station Radio (International) licence class product.
- 4.14 The standard rate charges are based on a 6.25 kHz channel. We acknowledge that at present we are only able to allocate 25 kHz channels due to international rules therefore the actual end user fee will be four times the standard rate. We are working with the international community to see if other bandwidths could be made available.

### Simplex

- 4.15 As already outlined in paragraph 3.15, there are eight international simplex channels to which we are to apply an AIP-based rate. For this licence class, the calculation of the charge will be based on the same four area spectrum congestion criteria as their Area Defined counterparts (see Figure 2). However, in addition, the base station's maximum effective radiated power (ERP) and the antenna height above mean sea level will also be taken into account. These factors are used as a determinant of the approximate coverage of the station.
- 4.16 Table 7 sets out the relevant factors and fees. "W" is the effective radiated power (ERP) measured in watts and "A" is the height of the antenna above mean sea level measured in metres. Depending on the outcome of these calculations coverage will

fall into one of three areas: Large coverage area, Medium coverage area and Small coverage area.

**Table 7: Coastal Station Radio (International) fee calculation per 6.25 kHz channel**

Geographic Area	Large Coverage area (Watts erp (P) and Antenna metres (A))	Medium Coverage area (Watts erp (P) and Antenna metres (A))	Small Coverage area (Watts erp (P) and Antenna metres (A))
	P $\geq$ 24 and A $\geq$ 10 P $\geq$ 10 and A $\geq$ 20 P $\geq$ 5 and A $\geq$ 30	P $>$ 10 and A $<$ 10 7 $<$ P $<$ 24 and 5 $<$ A $<$ 20 3 $<$ P $<$ 10 and 10 $<$ A $<$ 30 1.5 $<$ P $<$ 5 and A $>$ 20 P $<$ 5 and A $>$ 30	P $\leq$ 10 and A $\leq$ 5 P $\leq$ 7 and A $\leq$ 10 P $\leq$ 3 and A $\leq$ 20 P $\leq$ 1.5 and A $\leq$ 30
High congestion area	£50	£50	£50
Medium congestion area	£50	£37.50	£31.25
Low congestion area	£25	£18.75	£18.75
Non- congested area	£18.75	£18.75	£18.75

Source: Ofcom

4.17 The example below demonstrates how the fees would apply.

*Example:*

*A simplex licence for 6 Medium congestion areas (6 NGR grid squares) with Medium coverage use will be £900 (for a 1 x 25 kHz channel)*

*A simplex licence for 1 Non-congested area (1 NGR grid square) with Large coverage use will be £75 (for a 1 x 25 kHz channel)*

### *Channels 87 and 88*

4.18 For the same reasons set out in paragraph 3.19 in relation to Coastal Station Radio (International) Area Defined licences, we do not propose to apply an AIP-based rate to channels 87 and 88 for Coastal Station Radio (International) licences. Instead, we will apply a cost-based recovery fee. As there is no congestion in these channels we have decided that it is appropriate to apply the 'no congestion' rate of £18.75 per 6.25 kHz (£75 for a 25 kHz channel). We will continue to review use in these channels.

### *Channels attracting no end user fee*

4.19 Again for similar reasons to those set out in paragraph 3.1, there are a number of channels that will not attract any end user fees. For Coastal Station Radio (International) simplex licences these are the following channels:

- 156.300 MHz (Channel 6);
- 156.375 MHz (Channel 67) (providing it is used solely to assist Her Majesty's Coastguard or oil pollution control activities);
- 156.400 MHz (Channel 8);

- 156.500 MHz (Channel 10) (providing it is used solely to assist Her Majesty's Coastguard or oil pollution control activities);
- 156.525 MHz (Channel 70);
- 156.625 MHz (Channel 72);
- 156.650 MHz (Channel 13);
- 156.675 MHz (Channel 73) (providing it is used solely to assist Her Majesty's Coastguard or oil pollution control activities);
- 156.750 MHz (Channel 15);
- 156.775 MHz (Channel 75);
- 156.800 MHz (Channel 16);
- 156.825 MHz (Channel 76);
- 156.850 MHz (Channel 17); and
- 156.875 MHz (Channel 77).

#### *Future licence charge increases*

4.20 Figure 2 of the Maritime AIP Statement states that the licence fees for Heavy Congestion areas will increase over the next three years. Table 8 below demonstrates the impact this will have on the standard fee rate for Large, Medium and Small coverage areas. The subsequent increases for 2012 onwards will be implemented in future regulations.

**Table 8: Future fees for Coastal Station Radio (International) simple licences in High Density areas**

Coverage	2011	2012	2013
Large coverage area	£50	£87.50	£125
Medium coverage area	£50	£75	£100
Small coverage area	£50	£75	£75

Source: Ofcom

#### Duplex

4.21 Fees for a duplex channel under a Coastal Station Radio (International) licence are currently £100. Paragraph 4.20 of the Maritime AIP Statement concluded that each assignment for an international duplex channel should attract a reduced fee of £75 per year.

### *Channels attracting no end user fee*

4.22 Once more, for similar reasons to those set out in paragraph 3.12, there are a number of channels that will not attract any end user fees. For Coastal Station Radio (International) duplex licences these are the following channels:

- 157.150/161.750 MHz (Channel 23);
- 157.225/161.825 MHz (Channel 84); and
- 157.325/161.925 MHz (Channel 86).

### **Coastal Station Radio (Marina)**

4.23 The annual charge and payment interval is to remain the same at £75 per base station charged on an annual basis. Licences lasting less than a year will now, however, be provided for by the Proposed Regulations for one-twelfth of the cost of an annual licence per month or part month, subject to a minimum fee of £20.

4.24 Due to this change we are to remove the Temporary Coastal Radio Station (Marina) licence class product. The Proposed Regulations do not, therefore, include it.

### **Coastal Station Radio (Training School)**

4.25 As stated in paragraph 4.26 of the Maritime AIP Statement we are removing the requirement to pay a fee for this licence class every year, at a cost of £50. Instead the licence will only be subject to an initial one-off charge of £20 for the lifetime of the licence.

### **Maritime Radio (Suppliers and Demonstration)**

4.26 Paragraph 4.27 of the Maritime AIP Statement outlined that we were to increase the licence fee from £50 to £75. However, as part of this change we are to increase the licence payment interval period from one to five years.

### **Differential Global Position System**

4.27 For medium frequency stations the licence charge is to remain at £1000, payable every twelve months. The Proposed Regulations provide for temporary licences to be issued for one-twelfth of the cost of an annual licence per month or part month.

4.28 VHF channels will be subject to AIP-based fees as set out in paragraph 2.13 of the 2009 AIP Consultation. For administrative ease, these channels will be authorised under the Business Radio Technically Assigned licence class.

### **Business Radio services in Band I (55.75 to 68 MHz)**

4.29 On 26 February 2009 we published a consultation “Review of Business Radio licence fees in Band I 55.75 to 68 MHz”<sup>10</sup> looking at reviewing the licence charges in this band. Given the legal restrictions on the use of the Band and the comparatively poor quality of the spectrum at these frequencies (in particular susceptibility to interference), we were concerned that the price being asked may dissuade users from applying to use the spectrum and that this led to sub-optimal use of the Band.

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<sup>10</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/bandi/summary/bandi.pdf>

- 4.30 We therefore commissioned a report from consultants Analysys Mason into the opportunity cost of the Band.<sup>11</sup> They reported that the nature and level of use of the Band meant that the opportunity cost was zero. We subsequently reviewed the fees and proposed that they should not be based on AIP but should contribute to the recovery of our administrative costs.
- 4.31 On 29 June 2009 we published a statement<sup>12</sup> which indicated our intention to change the fees for Business Radio services in Band I. In that statement we advised that we would make the changes to regulations at the earliest opportunity. The Proposed Regulations would implement this decision.
- 4.32 The fees that we are to implement are as set out in Table 9.

**Table 9 - Annual fees per 2 x 12½ kHz (or 1 x 25 kHz) channel**

Licence	Current fee £pa <sup>13</sup>	Proposed fee £pa
Technically assigned	75	75
Area-defined (UK)	3,300	600
Area-defined (England)	2,758	150
Area-defined (Wales)	163	150
Area-defined (Scotland)	285	150
Area-defined (Northern Ireland)	93	150
Area-defined GB (England, Wales and Scotland)	3,206	450
Area-defined per Trading Unit in a High Population area	395	150
Area-defined per Trading Unit in a Medium Population area (subject to an absolute minimum annual fee of £75 pa)	50	50
Area-defined per Trading Unit in a Low Population area (subject to an absolute minimum annual fee of £75 pa)	5	5

Source: Ofcom

### Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts)

- 4.33 Since October 2007, the UK has begun to migrate the broadcasting of television services from analogue to digital as part of Digital Switchover (DSO). The migration is happening one television region at a time and the process is due to end in March 2013.
- 4.34 Following the conclusion of DSO, we will no longer need to devote any time or resources to planning or protecting UK analogue TV transmissions although there may be some administrative work required right at the end. So by the end of March 2013, provided DSO goes to schedule, the costs to be recovered should be zero, or very close to zero. Therefore, beginning in 2009 we decided to reduce the licence cost associated with these two licences classes as each area switches off their analogue network. The fee reductions for 2011 are to be formalised in the Proposed Regulations as illustrated in Table 10.

<sup>11</sup>

<http://stakeholders.ofcom.org.uk/binaries/consultations/bandi/annexes/report.pdf>

<sup>12</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/bandi/statement/br.pdf>

<sup>13</sup> See [www.ofcom.org.uk/licensing/applications08/changes/Fees/nonexcelguide.pdf](http://www.ofcom.org.uk/licensing/applications08/changes/Fees/nonexcelguide.pdf)

**Table 10 – Analogue television broadcasting licence charges**

Year	Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts – BBC)	Broadcasting services (Transmission of National and Regional Analogue Television Broadcasts – Independent Television Networks)
2011	283,708	333,243

Source: Ofcom

**Satellite (Transportable Earth Station)**

- 4.35 On 13 September 2010 we published our proposal to make additional spectrum available for Transportable Earth Stations (TES)<sup>14</sup>. The additional frequency bands that we proposed to make available for TES use were 5.925 to 7.075 GHz, 27.5 to 27.8185 GHz, 28.4545 to 28.8265 and 29.4625 to 30 GHz. We outlined our intention to apply the same principles and approach for fee charging in the new bands as are used for TES use in the existing band 13.78 to 14.5 GHz.
- 4.36 In our statement “Additional Spectrum for Transportable Earth Stations”, published on 17 November 2010,<sup>15</sup> we published our decision to go ahead with our proposals including the introduction of the new licence charges for the new bands outlined in Table 11. The new charge will be for each Earth Station operating in one of the new bands in column 2 or 3. The amount will be determined by the “range of p,” which is itself determined by the power of the Earth Station and the bandwidth it occupies.

**Table 11 – Satellite (Transportable Earth Station) licence charges**

Column 1: Range of p	Fee (£) per earth station in the band 5.925 - 7.075 GHz	Fee (£) per earth station in the bands 27.5 - 27.8185, 28.4545 - 28.8265, 29.4625 – 30 GHz
$0 < p \leq 100$	500	200
$100 < p \leq 2,500$	2,400	800
$P > 2,500$	7,400	2,600

Source: Ofcom

<sup>14</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/tes-additional-spectrum/summary/tes-additional-spectrum.pdf>

<sup>15</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/tes-additional-spectrum/statement/statement.pdf>



## Section 5

# Editorial changes

5.1 Since the 2005 Regulations were made a number of changes have been made to some WT Act licence classes. This has resulted in a number of licence classes or associated clauses being no longer being relevant. The licences that are affected are:

- Some Business Radio licence classes now superseded;
- Satellite (Transportable Very Small Aperture Terminal) (TVSAT);
- Some Maritime;
- Citizens Band (CB) Radio;
- Temporary; and
- Scanning Telemetry.

## Business Radio

5.2 In August 2008 we introduced legislation that introduced a number of changes to Business Radio. The ultimate aim of this liberalisation was to reduce the number of licence classes from twenty-one to seven licence types. The new licence classes and associated fees were implemented into law through the Wireless Telegraphy (Licence Charges) (Amendment) (No.2) Regulations 2008, SI 2008/2106<sup>16</sup> which amended the 2005 Regulations.

5.3 At the time of implementing these changes we had to keep references to the old licence classes in the 2005 Regulations as licensees still had to go through a licence variation process, and until that was complete the old licence classes were still relevant. Now that the variation process has been completed we now propose to remove references to the old licence classes from the regulations.

5.4 This is an administrative procedure and will not impact on licensees. The licence classes to be removed are:

- Business Radio (Public Wide Area Paging);
- Business Radio (Public Mobile Data, Non-Voice);
- Business Radio (National and Regional);
- Business Radio (Tetra Digital PAMR);
- Business Radio (CDMA Asset Tracker);
- Business Radio (Remote Meter Reading Operator) - Exclusive channel;
- Business Radio (Analogue PAMR);

<sup>16</sup> [http://www.opsi.gov.uk/si/si2008/pdf/uksi\\_20082106\\_en.pdf](http://www.opsi.gov.uk/si/si2008/pdf/uksi_20082106_en.pdf)



- Business Radio (Common Base Stations);
- Business Radio (Remote Meter Reading Operator) - Shared channels;
- Business Radio (Wide Area Speech and Data Systems);
- Business Radio (Wide Area One-Way Paging and Speech Systems);
- Business Radio (Wide Area Distress Alarms);
- Business Radio (Band 1 and Band III CBS);
- Business Radio (IR2008 Data);
- Business Radio (On-Site Speech and Data Systems);
- Business Radio (On Site Hospital Paging and Emergencies Speech Systems);
- Business Radio (UK General);
- Business Radio (On-Site Local Communications);
- Business Radio (On-Site One-Way Paging and Speech);
- Business Radio (Self-Select); and
- Business Radio (Suppliers).

### **Satellite (Transportable Very Small Aperture Terminal) (TVSAT)**

- 5.5 We propose to remove the fees associated with the TVSAT licence as we no longer issue licences of this class. A TVSAT is a small two-way satellite ground station used to transmit and receive data, video and voice communications via satellite. A TVSAT is a specific type of Very Small Aperture Terminal (VSAT) that can be transported between locations where communication is to be made. Typical applications include VSATs mounted on emergency response vehicles and mobile libraries.
- 5.6 Fees for the TVSAT licence were introduced by the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008, SI 2008/139.<sup>17</sup> Since we introduced the TVSAT licence in 2008 we have reviewed the licence and this revealed that all the equipment could be accommodated under either the Satellite (Earth Station Network) or the Satellite (Transportable Earth station) licence, depending on the level of radiated power and frequency range of operation.
- 5.7 As no TVSAT licences have been issued we therefore propose not to include that licence class in the Proposed Regulations. There are no other adverse impacts on licensees as all TVSAT equipment is licensable under one of two existing satellite licences, which have an equivalent or lower licence fee. We have already communicated this arrangement to satellite stakeholder groups and we can report that its implementation has been successful.

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<sup>17</sup> [http://www.opsi.gov.uk/si/si2008/pdf/uksi\\_20080139\\_en.pdf](http://www.opsi.gov.uk/si/si2008/pdf/uksi_20080139_en.pdf)

## Maritime

5.8 As outlined in section 4, we are no longer to issue the following licence classes and reference to them is not included in the Proposed Regulations:

- Temporary Coastal Station Radio (UK);
- Temporary Coastal Station Radio (International); and
- Temporary Coastal Station Radio (Marina).

## Citizen's Band (CB) Radio

5.9 In July 2006 we consulted on proposals to exempt CB Radio from the need to hold a WT Act licence.<sup>18</sup> Following that consultation we consulted on the necessary regulations in order to do this. Licence exemption for CB Radio was introduced through the Wireless Telegraphy (Exemption) (Amendment) Regulations 2006.<sup>19</sup>

5.10 On reviewing the 2005 Regulations, we noticed that a reference to CB Radio licence charges is still contained in them. The Proposed Regulations would not include this reference as the equipment no longer requires a licence.

## Temporary licences

5.11 We are proposing to make a slight modification to the threshold for charging for a licence issued for less than a year. At present only licences with an annual fee greater than £75 are available for a pro rata charge. This means that a number of licences are not available on this basis. The Proposed Regulations would change the threshold so that those licence classes with an annual fee of £75 or more may be made available for a pro-rated charge.<sup>20</sup>

5.12 An important reason for this proposed change is that a number of licence classes under the Proposed Regulations have a minimum charge of £75 for an annual licence. These include those Maritime licences referred to in section 4 of this document – Coastal Station Radio (UK), Coastal Station Radio (International) and Coastal Station Radio (Marina) – for which temporary licences are available as separate licence classes under the 2005 Regulations, but which temporary licence classes are not included in the Proposed Regulations. Making the proposed change to the threshold for pro-rated licences enables their inclusion in the range of licences that may be made available for a pro-rated charge.

5.13 Doing so also simplifies the legislation. At present, some licences are charged for as separate temporary licence classes, others costing more than £75 may be charged on a pro-rated basis. Bringing more licences into the group that may be charged for on a pro-rated basis enables us to remove separate temporary licence classes from the legislation, allowing it to take a more uniform approach.

<sup>18</sup> <http://www.ofcom.org.uk/consult/condocs/wtexemption/exemption.pdf>

<sup>19</sup> <http://www.opsi.gov.uk/si/si2006/20062994.htm>

<sup>20</sup> For a charge of one-twelfth of the prescribed sum for an annual licence of the relevant class for each month of the temporary licence, subject to a minimum charge of £20

## Scanning Telemetry

- 5.14 In the 2005 Regulations there was a provision for a national licence that on the first issue of the licence the fee would be £6440 which would then rise to £7920 for each subsequent year. This was put in place to migrate existing users to the new fee rate. There are only two national licences allocated and we do not plan to issue any more due to the lack of available spectrum. For this reason we no longer see the value in retaining the first year clause in the regulations. This proposed change will have no affect on existing licensees.

## Section 6

# Simplifying the regulatory framework

- 6.1 To introduce the changes outlined in this document we felt it would also be useful to take this opportunity to consolidate the relevant legislative provisions. We believe that this would make it easier for stakeholders to understand the regulatory environment and reduce the administrative burden this may cause.
- 6.2 The 2005 Regulations – The Wireless Telegraphy (Licence Charges) Regulations 2005 – have been amended several times since 2005. We are proposing to revoke all previous licence charge regulations and replace them with a new single set of regulations, the Wireless Telegraphy (Licence Charges) Regulations 2010 (the “Proposed Regulations”).
- 6.3 The Proposed Regulations would revoke and replace the following regulations:
- Wireless Telegraphy (Licence Charges) Regulations 2005;<sup>21</sup>
  - Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2006;<sup>22</sup>
  - Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2007;<sup>23</sup>
  - Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008;<sup>24</sup>
  - Wireless Telegraphy (Licence Charges) (Amendment) (No. 2) Regulations 2008;<sup>25</sup> and
  - Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2009.<sup>26</sup>
- 6.4 We do not believe that the proposal to revoke the current regulations and replace them with a single new, consolidated set would have any adverse impact on stakeholders, rather it removes the need to cross refer between up to seven different Statutory Instruments.

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<sup>21</sup> [http://www.legislation.gov.uk/uksi/2005/1378/pdfs/uksi\\_20051378\\_en.pdf](http://www.legislation.gov.uk/uksi/2005/1378/pdfs/uksi_20051378_en.pdf)

<sup>22</sup> [http://www.legislation.gov.uk/uksi/2006/2894/pdfs/uksi\\_20062894\\_en.pdf](http://www.legislation.gov.uk/uksi/2006/2894/pdfs/uksi_20062894_en.pdf)

<sup>23</sup> [http://www.legislation.gov.uk/uksi/2007/2326/pdfs/uksi\\_20072326\\_en.pdf](http://www.legislation.gov.uk/uksi/2007/2326/pdfs/uksi_20072326_en.pdf)

<sup>24</sup> [http://www.legislation.gov.uk/uksi/2008/139/pdfs/uksi\\_20080139\\_en.pdf](http://www.legislation.gov.uk/uksi/2008/139/pdfs/uksi_20080139_en.pdf)

<sup>25</sup> [http://www.legislation.gov.uk/uksi/2008/2106/pdfs/uksi\\_20082106\\_en.pdf](http://www.legislation.gov.uk/uksi/2008/2106/pdfs/uksi_20082106_en.pdf)

<sup>26</sup> [http://www.legislation.gov.uk/uksi/2009/66/pdfs/uksi\\_20090066\\_en.pdf](http://www.legislation.gov.uk/uksi/2009/66/pdfs/uksi_20090066_en.pdf)

## Section 7

# General effect of the Wireless Telegraphy (Licence Charges) Regulations 2011

### The legislative framework

- 7.1 Ofcom can charge for the granting of wireless telegraphy licences, other than those awarded by auction, by making Regulations under section 12 of the WT Act. By virtue of section 13 of that Act we can use AIP to set those charges: setting licence fees above administrative costs to reflect a range of spectrum management objectives. Doing so discharges a range of duties under section 3 of the WT Act which require us to efficiently manage the radio spectrum.
- 7.2 We propose to make the Proposed Regulations, under section 12, to set the relevant charges. The Proposed Regulations would implement the charges, including changes to current charges, proposed in this document. They would also maintain a number of the charges currently provided for by the 2005 Regulations. Some of the charges in the Proposed Regulations would be set on the basis of administrative costs, others on the basis of AIP.
- 7.3 The 2005 Regulations and the subsequent regulations that amend the 2005 Regulations will be revoked and replaced by the Proposed Regulations.
- 7.4 A draft of the Proposed Regulations is included in Annex 6 of this document.

### Extent of application

- 7.5 The Proposed Regulations will apply in the United Kingdom, the Channel Islands and the Isle of Man, subject to formal agreement of the Island Authorities.

### The Proposed Regulations

- 7.6 Regulation 1 sets out the citation – the way the proposed Regulations may be referred to - and their commencement date (to be confirmed).
- 7.7 Regulation 2 sets out the provisions concerning the interpretation – in particular, the definition of key terms - of the Proposed Regulations. Amongst other things, the regulation updates the legislation in relation to the WT Act and removes references to the previous legislation now superseded.
- 7.8 Regulation 3 provides for the revocation of the 2005 Regulations and subsequent regulations amending the 2005 Regulations, as outlined in paragraph 6.3 above.
- 7.9 Regulation 4 provides the mechanism for prescribing fees. It is the substantive provision introducing the detail in Schedule 2, and other Schedules, of the Proposed Regulations, which detail provides the fees, or the method of their calculation, for individual licence classes. The provisions and effect of this regulation are substantially the same as under the 2005 Regulations. It provides for the payment for each licence class on the issue, variation and/or prescribed payment interval of a licence of the fixed and/or variable sums set out in Schedule 2 and subsequent Schedules.

- 7.10 Regulation 5 concerns concessionary charges for certain wireless telegraphy licences granted to a charity concerned with emergency safety of human life.
- 7.11 Regulation 6 sets out that, in cases where a charge for a licence is not prescribed by the Proposed Regulations, Ofcom may determine the charge payable.
- 7.12 Schedule 1 outlines the regulations that are to be revoked.
- 7.13 Schedule 2 details the licence charges and payment intervals for individual licence classes and includes the new Maritime, Business Radio Band I and Satellite fee charges described in more detail in sections 3 – 5 of this document.
- 7.14 Schedule 3 provides the formula for calculating charges for Point to Point Fixed Links licences.
- 7.15 Schedule 4 outlines the fees payable for Satellite (Permanent Earth Station) and (Transportable Earth Station) licences.
- 7.16 Schedule 5 contains the population area classifications used in the calculation of charges for certain Business Radio and Maritime licence classes.
- 7.17 Schedule 6 sets out the charges for Business Radio (Area Defined) licences and includes the new licence charges for Band I users.
- 7.18 Schedule 7 details the charges for Business Radio (Technically Assigned) licences.
- 7.19 Schedule 8 sets out the new congestion areas used in the calculation of charges for Coastal Station Radio (International) simplex licences.
- 7.20 Schedule 9 sets out the new licence charges for Coastal Station Radio (International) simplex licences.
- 7.21 Schedule 10 sets out the licence charges for Coastal Station Radio (International) Area Defined licences for certain internationally recognised simplex channels.
- 7.22 Schedule 11 sets out the licence charges for Coastal Station Radio (International) Area Defined licences for internationally recognised simplex channels 87 and 88.
- 7.23 Schedule 12 sets out the licence charges for Coastal Station Radio (International) Area Defined licences for internationally recognised duplex channels.
- 7.24 Schedule 13 sets out the licence charges for Coastal Station Radio (UK) licences.
- 7.25 Schedule 14 sets out the licence charges for Coastal Station Radio (UK) Area Defined licences.

*We would welcome any comments on the drafting of the Proposed Regulations, and in particular whether they give effect to what Ofcom intends (as outlined in this document).*

## Annex 1

# Responding to this consultation

## How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 23 December 2010**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://stakeholders.ofcom.org.uk/consultations/notice-wireless-telegraphy-2010/>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email [Paul.Chapman@ofcom.org.uk](mailto:Paul.Chapman@ofcom.org.uk) attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Paul Chapman  
Ofcom  
Riverside House  
2A Southwark Bridge Road  
London SE1 9HA
- Fax: 020 7981 3921
- A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

## Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Paul Chapman on 020 7981 3069.

## Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk), ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.

- A1.9 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A1.10 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/accoun/disclaimer/>

### Next steps

- A1.11 Following the end of the consultation period, Ofcom intends to publish a statement by March 2011.
- A1.12 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: [http://www.ofcom.org.uk/static/subscribe/select\\_list.htm](http://www.ofcom.org.uk/static/subscribe/select_list.htm)

### Ofcom's consultation processes

- A1.13 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.14 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at [consult@ofcom.org.uk](mailto:consult@ofcom.org.uk) . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A1.15 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Vicki Nash, Director Scotland, who is Ofcom's consultation champion:

Vicki Nash  
Ofcom  
Sutherland House  
149 St. Vincent Street  
Glasgow G2 5NW

Tel: 0141 229 7401  
Fax: 0141 229 7433

Email [vicki.nash@ofcom.org.uk](mailto:vicki.nash@ofcom.org.uk)



## Annex 2

# Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

### Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

### During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

### After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

## Annex 3

# Consultation response cover sheet

- A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk).
- A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.
- A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at [www.ofcom.org.uk/consult/](http://www.ofcom.org.uk/consult/).
- A3.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don't have to edit your response.

## Cover sheet for response to an Ofcom consultation

### BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

### CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing	<input type="checkbox"/>	Name/contact details/job title	<input type="checkbox"/>
Whole response	<input type="checkbox"/>	Organisation	<input type="checkbox"/>
Part of the response	<input type="checkbox"/>	If there is no separate annex, which parts?	

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

### DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name

Signed (if hard copy)

## Annex 4

# Consultation question

- A4.1 As required by regulation 122 of the Wireless Telegraphy Act 2006 we must give notice of proposals that we intend to make and consider any representations that we receive. This document gives notice of our proposal to make the Wireless Telegraphy (Licence Charges) Regulations 2010.

*Question 1) Do you agree that the drafting of the Proposed Regulations correctly gives effect to the policy proposals as published in the statements referred to in this document and to the other intentions set out in this document?*

## Annex 5

# Impact Assessment

## Introduction

- A5.1 The analysis in this annex, together with that elsewhere in this document and set out more fully in the consultation documents and statements referred to below (and elsewhere in this document), is an impact assessment relating to the Proposed Regulations. Impact assessments are defined in section 7 of the Communications Act 2003 (“the 2003 Act”). As the impact of the policy decisions that would be implemented by the Proposed Regulations has already been assessed in the other documents referred to, a separate impact assessment for the Proposed Regulations may not strictly be necessary. We nevertheless include this annex, which summarises the earlier, fuller assessments, as a matter of good practice.
- A5.2 You should send any comments on this impact assessment to us by the closing date for this consultation. We will consider all comments before deciding whether to implement our proposals.
- A5.3 Impact assessments 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. This is reflected in section 7 of the 2003 Act, which means that generally we have to carry out impact assessments 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 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. For further information about our approach to impact assessments, see the guidelines, Better policy-making: Ofcom’s approach to impact assessment, which are on our website: [http://www.ofcom.org.uk/consult/policy\\_making/guidelines.pdf](http://www.ofcom.org.uk/consult/policy_making/guidelines.pdf)

## The citizen and/or consumer interest

- A5.4 Our principal duty under section 3 of the Act is to further the interests of citizens in relation to communications matters; and of consumers in relevant markets, where appropriate by promoting competition. We take account of the impact of our decisions upon both citizen and consumer interests in the markets we regulate. We must, in particular, secure the optimal use for wireless telegraphy of spectrum and have regard to the principle under which all regulatory activities should be targeted only at cases in which action is needed. In proposing changes we have considered the wider impact beyond immediate stakeholders in the radiocommunications community. We believe that the proposals will be of benefit to consumers for the following reasons:
- i) continued use of Administered Incentive Pricing (“AIP”) will encourage more efficient use of the radio spectrum making more spectrum available to potential new uses;
  - ii) reduction in the charges for Band I would help to encourage the efficient use of the radio spectrum otherwise unused; and
  - iii) removing licence classes no longer available would make it easier for stakeholders to find the appropriate licence charge.

## Ofcom's policy objective

- A5.5 We have a number of duties under section 3 of the Wireless Telegraphy Act 2006 (the "WT Act"). These include having regard when carrying out our radio spectrum functions to:
- i) the extent that spectrum is available for use; and
  - ii) the desirability of promoting the efficient management and use of the spectrum for wireless telegraphy.
- A5.6 Under section 12 of the WT Act Ofcom may prescribe in regulations the sums payable in respect of wireless telegraphy licences other than those awarded by auction. This power enables us to recover the cost of administering and managing WT Act licences. However, section 13 of the WT Act permits us to recover sums greater than those we incur in performing our spectrum management functions, to reflect a range of spectrum management objectives. In particular, in order to provide incentives - AIP - to licensees to use their spectrum more efficiently. This goes to discharging our duties under section 3 of the WT Act.
- A5.7 This impact assessment relates to our proposal to update the regulations that prescribe charges for wireless telegraphy licences. We are proposing new regulations – the Proposed Regulations – that would revoke and replace the current legislation: The Wireless Telegraphy (Licence Charges) Regulations 2005 (SI 2005/1378) ("the 2005 Regulations") and the regulations that amend the 2005 Regulations. The Proposed Regulations would maintain a number of the charges prescribed by the 2005 Regulations, but would also create charges for new licence classes and change some existing charges, some on the basis of AIP.
- A5.8 The assessment relates to the impact of the options Ofcom has considered in connection with charging for wireless telegraphy licences. It does so primarily in the context of the licence classes that could be the main areas of change were the Proposed Regulations made. As we say above, Ofcom has already carried out more detailed impact assessments in those areas, in the other documents referred to. What we say here summarises those more detailed assessments.

## Options considered

- A5.9 The options open to Ofcom in relation to the fees charged for WT Act licences generally fall into the following categories:
- i) not to charge for WT Act licences;
  - ii) to charge cost recovery prices for wireless telegraphy licences;
  - iii) to charge the full rate of AIP; or
  - iv) a mixture of these options.

## Analysis of options

- A5.10 An analysis of the options considered for the main new elements in the Proposed Regulations are detailed below.

## Maritime licence classes

- A5.11 A full analysis of the options for the proposed fees for maritime licensing, and their impact, was set out in section 4 of our document “Applying spectrum pricing to the maritime sector, and new arrangements for the management of spectrum used with radar and aeronautical navigation aids” statement published on 15 June 2010.<sup>27</sup>
- A5.12 The assessment was that:
- 5.12.1 We consider our proposals will benefit citizens and consumers by helping to manage excess demand, potentially leading to release of spectrum for other users.
  - 5.12.2 We consider the proposal to apply AIP licence fees to the use of spectrum in the maritime sector is consistent with our duties and functions under the 2003 Act, since we have a general duty to promote the “efficient use and management of the electro-magnetic spectrum for wireless telegraphy”.
  - 5.12.3 We consider that fees based on opportunity costs are likely to generate higher welfare benefits for consumer and producers overall where there is excess demand in current or alternative uses. In cases where there is no excess demand in either current or feasible alternative use, we proposed administrative (cost-recovery) fees. Where frequencies are used on a private commons basis, often for safety of life purposes, we proposed zero rated fees for end users (e.g. international calling and distress channels and channels used for co-ordinated search and rescue).
  - 5.12.4 We identified the distribution of financial impacts of these detailed fees structures on different types of licensees. We commissioned independent consultants Helios Technology Ltd to make a detailed assessment of the relevant fees impacts on individual licensees. Consequently it was estimated that 33% of licensees would see overall decreases, 40 % (mainly those using the marina channels) will see no overall change, and 26% will see overall increases. Although some licensees have surrendered their licences and others have been granted new licences since the dataset used for the analysis set out in August 2009 was compiled, these proportions have not changed materially and are now 30%, 44% and 25% respectively (these figures do not quite add up to 100% as data was rounded to nearest whole number). Of those facing overall increases, we estimated that half will see overall increases of not more than £400 per year, and this remains the case with the current population of licences.
  - 5.12.5 Ofcom considered specific phasing-in options for detailed fees structures (see paragraphs 7.103 to 7.109 of the August 2009 consultation) aimed at mitigating the transitional financial impacts that specific licensees may experience. Our proposals were aimed at reducing risks of inefficient responses to the new fees, even from the smaller organisations which are proportionately more affected.

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<sup>27</sup> [http://stakeholders.ofcom.org.uk/binaries/consultations/aip\\_maritime/statement/statement.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/aip_maritime/statement/statement.pdf)

## **Satellite (Complementary Ground Components of a Mobile Satellite System)**

A5.13 A full analysis of the options for the proposed AIP fee level, and their impact, was set out in Annex 4 of “Authorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systems” statement published on 17 July 2009.<sup>28</sup>

A5.14 The assessment was that:

5.14.1 It remained appropriate to apply the principle of AIP to 2 GHz Satellite Mobile Satellite Systems (MSS) Complementary Ground Components (CGC) licence fees.

5.14.2 There was not a compelling reason to choose a rate which is different from the rate of £554,000 per 2 x 1 MHz that we proposed in our initial consultation. Our judgement was that the use of this rate strikes a reasonable balance by being a conservative number within the range of mobile AIP rates applied to existing licences.

## **Business Radio Band I (55.750 – 68 MHz)**

A5.15 The full analysis of the options for the proposed charge, and their impact, was set out in Annex 5 of our document “Review of Business Radio licence fees in Band I” published 26 February 2009.<sup>29</sup> We also commissioned Analysys Mason to investigate the opportunity costs of Band I.<sup>30</sup>

A5.16 The assessment was that:

5.16.1 Opportunity cost for the band is zero and meant that we could reduce the fees to reflect administrative cost recovery and not AIP.

5.16.2 Lower fee helps to reduce the likelihood that the band will be used inefficiently.

5.16.3 It is unlikely that demand will exceed supply for this band, even with the lower fees proposed. However, if that were to happen, we would have to review the fees again and possibly the spectrum assignment mechanism.

5.16.4 Our preferred option was to reduce the licence fees for the band, in light of the reappraisal of its opportunity cost.

## **Satellite (Transportable Earth Station)**

A5.17 The full analysis of the options for the proposed charges, and their impact, was set out in Section 3 of our consultation “Additional Spectrum for Transportable Earth Stations” published 13 September 2010.<sup>31</sup>

A5.18 The assessment was that:

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<sup>28</sup> <http://www.ofcom.org.uk/consult/condocs/cgcs2/statement/2ghzstatement.pdf>

<sup>29</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/bandi/summary/bandi.pdf>

<sup>30</sup>

<http://stakeholders.ofcom.org.uk/binaries/consultations/bandi/annexes/report.pdf>

<sup>31</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/tes-additional-spectrum/summary/tes-additional-spectrum.pdf>



- 5.18.1 It was appropriate to apply the same principles and approach for fees charging as are used for current use in other bands.
- 5.18.2 It was not appropriate to adopt a “from first principles” fee review for the new frequencies. This would distort the choice of frequency band an operator makes if the fees for the new frequencies were based on different principles to those used already.
- 5.18.1 It would only make sense to develop new “from first principles” fee proposals as part of a wider review of fees for Transportable Earth Stations and licence classes sharing the use of these bands, including Fixed Links and Permanent Earth stations. We therefore believe that it will be appropriate for these fees to be reviewed as and when the comparator fees on which they are based are reviewed.
- A5.19 In our statement “Additional Spectrum for Transportable Earth Stations”, published on 17 November 2010,<sup>32</sup> we confirmed our decision to go ahead with introducing the licence charges in the additional frequency bands.

### Preferred option

- A5.20 In order to continue to meet our spectrum management duties, and in light of the assessments referred to above, we propose to continue to charge for licences using a mixture of the options in paragraph A5.9 above. Although our general approach remains unchanged, in order to introduce a simplified, more flexible licensing approach, it is necessary to amend the way that licence charges are applied. We will continue to use AIP-based rates for those areas where we believe that, in recognition of our duty to ensure that spectrum is used efficiently, it is important that the value of the spectrum is reflected in its cost.
- A5.21 Although they are difficult to quantify, we believe, for the reasons set out in more detail in the assessments referred to above, that these benefits are likely to exceed the costs to stakeholders of the increases in fees that will apply in some cases. Moreover, if we did not update our spectrum fees – for example, to reflect the value of the spectrum in appropriate cases, and reduce charges to reflect administrative costs in others - it might harm the efficient use of spectrum. We would not be acting consistently with our wider spectrum management duties, which would have repercussions in terms of economic efficiency.
- A5.22 There are one-off administrative costs associated with making a Statutory Instrument. We consider the implementation costs to be low and offset by the benefits. There may be a slight reduction in spectrum management costs in certain areas.
- A5.23 For the reasons identified in the preceding paragraphs we consider the benefits of making the Proposed Regulations outweigh the costs. We therefore propose to make the Wireless Telegraphy (Licence Charges) Regulations 2010.

### Equality Impact Assessment

- A5.24 Following an initial assessment of our policy proposals we consider that it is reasonable to assume that any impacts on consumers and citizens arising from the

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<sup>32</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/tes-additional-spectrum/statement/statement.pdf>

Proposed Regulations would not differ significantly between groups or classes of UK consumers and citizens, all of whom would have access to these services, potentially at end-user prices reflective of all general input costs, including opportunity costs of spectrum used.

- A5.25 In addition, we note that there is no available evidence to suggest the decision to apply AIP would have a significantly greater direct financial impact on groups including based on gender, race or disability or for consumers in Northern Ireland relative to consumers in general. We do not consider that there is evidence to suggest that costs imposed on operators, would differ significantly by these aforementioned groups of consumers and citizens relative to consumers in general. This is because one would not expect the impact of supplying these consumers and citizens to differ significantly between these groups and consumers in general. Nor would cost reflective end-user prices therefore be expected to impact significantly differently on these groups as a result of charging for WT Act licences.
- A5.26 We have not carried out a full Equality Impact Assessment in relation to race equality or equality schemes under the Northern Ireland and disability equality schemes at this stage. This is because we are not aware that the proposals being considered here are intended (or would, in practice) have a significant differential impact on different gender or racial groups, on consumers in Northern Ireland or on disabled consumers compared to consumers in general.

**Annex 6**

# Proposed Regulations

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DRAFT STATUTORY INSTRUMENTS

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**2011 No. 0000**

## **ELECTRONIC COMMUNICATIONS**

### **The Wireless Telegraphy (Licence Charges) Regulations 2011**

*Made* - - - - - \*\*\*\*\*  
*Coming into force* - - - - - \*\*\*\*\*

The Office of Communications (“OFCOM”) make the following Regulations in exercise of the powers conferred by sections 12, 13(2) and 122(7) of the Wireless Telegraphy Act 2006<sup>(33)</sup> (“the Act”).

Before making these Regulations OFCOM have given notice of their proposal to do so in accordance with section 122(4)(a) of the Act, published notice of their proposal in accordance with section 122(4)(b) of the Act, and have considered the representations made to them before the time specified in the notice in accordance with section 122(4)(c) of the Act.

#### **Citation and commencement**

1. These Regulations may be cited as the Wireless Telegraphy (Licence Charges) Regulations 2011 and shall come into force on \*\*\*.

#### **Interpretation**

2.— In these Regulations—

“the 2004 Regulations” means the Wireless Telegraphy (Spectrum Trading) Regulations 2004<sup>(34)</sup>;

“the Act” means the Wireless Telegraphy Act 2006;

“apparatus” means apparatus for wireless telegraphy;

“Band I” means the 55.750 – 68.00 MHz band, with the exception of the 60.7500 – 62.7500 MHz sub-band and the 67.7500 – 67.8375 MHz sub-band;

“base station” means a station which facilitates or controls communications between a mobile station and—

(a) itself;

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<sup>(33)</sup> 2006 c.36; section 12 was amended by sections 38(1), (2) and (3) of the Digital Economy Act 2010 (c.24)

<sup>(34)</sup> S.I. 2004/3154 as amended by S.I. 2006/339, 2006/1807, 2007/380, 2007/3387, 2008/688, 2008/2105 and 2008/3192.

- (b) another mobile station;
- (c) a fixed mobile station; or
- (d) any electronic communications network;

“channel” means a part of the radio frequency spectrum intended to be used for a transmission of signals, and defined by—

- (a) two specified frequency limits;
- (b) its centre frequency and the associated bandwidth; or
- (c) an indication equivalent to (a) or (b);

“co-channel” means apparatus operating in an identical frequency or channel;

“complementary ground components of mobile satellite system” means ground-based stations used at fixed locations, in order to improve the availability of mobile satellite services in geographical areas within the footprint of the system’s satellites, where communications with one or more space stations cannot be ensured with the required quality;

“core London area” means the area within a circle which has a 22 kilometre radius from Charing Cross, London, which is located at grid square reference TQ 302 805;

“cross-polar” means the use of orthogonal polarisation to permit the re-use of identical frequencies or channels in the same area;

“earth station” means a radio station situated either on the earth’s surface or within the earth’s atmosphere and is intended for communication with one or more—

- (a) radio stations which are situated beyond, or are intended to be situated beyond, the earth’s atmosphere; or
- (b) radio stations of the same kind by means of one or more reflecting satellites or other objects in space;

“exclusive basis” means authorised use of a channel which is not shared with any other licensee;

“fixed link” means a connection by wireless telegraphy designed for use between two fixed points;

“fixed mobile station” means a control point configured to operate in the manner of a mobile station;

“grid square” means a National Grid square of the 2<sup>nd</sup> series of Landranger maps published by the Ordnance Survey;

“heavy congestion area” means such part of the British Islands being in an area listed in Schedule 8 and identified by reference to a grid square which is considered by OFCOM to have a heavily congested use of the radio frequency spectrum for a specified class of licence;

“high population area” means such part of the British Islands being in an area listed in Schedule 5 and identified by reference to a grid square which is considered by OFCOM to have a high proportion of the population;

“high usage bands” mean any of UHF Band I, UHF Band II and the VHF High Band;

“hub” means a single fixed site connected to more than one fixed station via wireless telegraphy links operating in the same frequency bands;

“large coverage area” means—

- (a) in relation to a Coastal Station Radio (International) Licence an area within which wireless telegraphy is authorised under a licence condition permitting—
  - (i) effective radiated power of transmission greater than or equal to 24 Watts where antenna height is greater than or equal to 10 metres above mean sea level;
  - (ii) effective radiated power of transmission greater than or equal to 10 Watts where antenna height is greater than or equal to 20 metres above mean sea level; or
  - (iii) effective radiated power of transmission greater than or equal to 5 Watts where antenna height is greater than or equal to 30 metres above mean sea level;
- (b) in relation to a Coastal Station Radio (UK) Licence an area within which wireless telegraphy is authorised under a licence condition permitting—

- (i) effective radiated power of transmission greater than 5 Watts where antenna height is greater than 10 metres above ground level; or
  - (ii) effective radiated power of transmission less than or equal to 5 Watts where antenna height is greater than 30 metres above ground level; and
- (c) in relation to any other licence an area within which wireless telegraphy is authorised under a licence condition permitting—
  - (i) effective radiated power of transmission greater than 5 Watts where antenna height is greater than 10 metres above ground level;
  - (ii) effective radiated power of transmission less than or equal to 5 Watts where antenna height is greater than 30 metres above ground level; or
  - (iii) transmission within a circular area which has a radius greater than 15 kilometres but less than or equal to 30 kilometres;

“licence” means a wireless telegraphy licence;

“licensee” means the person to whom a licence is issued;

“light congestion area” means such part of the British Islands being in an area listed in Schedule 8 and identified by reference to a grid square which is considered by OFCOM to have a lightly congested use of the radio frequency spectrum for a specified class of licence;

“low population area” means such part of the British Islands being an area listed in Schedule 5 and identified by reference to a grid square which is considered by OFCOM to have a low proportion of the population;

“low usage bands” mean the 133 kHz – 147 kHz band, the 26.225 MHz band, the 49.49375 MHz band, VHF Band I and VHF Low Band;

“medium congestion area” means such part of the British Islands being in an area listed in Schedule 8 and identified by reference to a grid square which is considered by OFCOM to have a medium level of congested use of the radio frequency spectrum for a specified class of licence;

“medium coverage area” means—

- (a) in relation to a Coastal Station Radio (International) Licence an area within which wireless telegraphy is authorised under a licence condition permitting—
  - (i) effective radiated power of transmission greater than 10 Watts where antenna height is less than 10 metres above mean sea level;
  - (ii) effective radiated power of transmission greater than 7 Watts but less than 24 Watts where antenna height is greater than 5 metres above mean sea level but less than 20 metres above mean sea level;
  - (iii) effective radiated power of transmission greater than 3 Watts but less than 10 Watts where antenna height is greater than 10 metres above mean sea level but less than 30 metres above mean sea level;
  - (iv) effective radiated power of transmission greater than 1.5 Watts but less than 5 Watts where antenna height is greater than 20 metres above mean sea level; or
  - (v) effective radiated power of transmission less than 5 Watts where antenna height is greater than 30 metres above mean sea level;
- (b) in relation to a Coastal Station Radio (UK) Licence an area within which wireless telegraphy is authorised under a licence condition permitting—
  - (i) effective radiated power of transmission less than or equal to 5 Watts where antenna height is greater than 10 metres above ground level and less than or equal to 30 metres above ground level; or
  - (ii) effective radiated power of transmission greater than 5 Watts where antenna height is less than or equal to 10 metres above ground level; and
- (c) in relation to any other licence an area within which wireless telegraphy is authorised under a licence condition permitting—

- (i) effective radiated power of transmission less than or equal to 5 Watts where antenna height is greater than 10 metres above ground level and less than or equal to 30 metres above ground level;
- (ii) effective radiated power of transmission greater than 5 Watts where antenna height is less than or equal to 10 metres above ground level; or
- (iii) transmission within a circular area which has a radius greater than 3 kilometres but less than or equal to 15 kilometres;

“medium frequency” means that part of the radio frequency spectrum between 531 kHz and 1602 kHz;

“medium population area” means such part of the British Islands being an area listed in Schedule 5 and identified by reference to a grid square which is considered by OFCOM to have a medium proportion of the population;

“medium usage bands” mean VHF Band II and VHF Mid Band;

“medium wave broadcasting band” means that part of the radio frequency spectrum between 526.5 kHz and 1606.5 kHz;

“mobile station” means a station (other than a base station) intended to be used while in motion or during halts at unspecified points;

“national channel” means a channel which the licensee is authorised to use throughout the United Kingdom;

“non-congestion area” means such part of the British Islands being in an area listed in Schedule 8 and identified by reference to a grid square which is considered by OFCOM not to have a congested use of the radio frequency spectrum for a specified class of licence;

“outer London area” means all of the area, other than the core London area, which is within a circle having 112 kilometre radius from Charing Cross, London, which is located at grid square reference TQ 302 805;

“prescribed payment interval” has the meaning given by regulation 4(1);

“prescribed sum” means a fixed sum or variable sum which is payable to OFCOM under regulation 4(1)(c) or (d);

“prescribed time” means the time when a sum is payable to OFCOM under regulation 4(1);

“shared basis” means authorised use of a channel which is shared with another licensee;

“slot” means the smallest unit of the radio frequency spectrum used in the construction of a frequency plan, such that all bands, sub-bands, blocks and channels which are used in such plan are integer multiples of the slot size;

“small coverage area” means—

(a) in relation to a Coastal Station Radio (International) Licence an area within which wireless telegraphy is authorised under a licence condition permitting—

- (i) effective radiated power of transmission less than or equal to 10 Watts where antenna height is less than or equal to 5 metres above mean sea level;
- (ii) effective radiated power of transmission less than or equal to 7 Watts where antenna height is less than or equal to 10 metres above mean sea level;
- (iii) effective radiated power of transmission less than or equal to 3 Watts where antenna height is less than or equal to 20 metres above mean sea level; or
- (iv) effective radiated power of transmission less than or equal to 1.5 Watts where antenna height is less than or equal to 30 metres above mean sea level;

(b) in relation to a Coastal Station Radio (UK) Licence an area within which wireless telegraphy is authorised under a licence condition permitting effective radiated power of transmission less than or equal to 5 Watts where antenna height is less than or equal to 10 metres above ground level; and

(c) in relation to any other licence an area within which wireless telegraphy is authorised under a licence condition permitting—

- (i) effective radiated power of transmission less than or equal to 5 Watts where antenna height is less than or equal to 10 metres above ground level; or
- (ii) transmission within a circular area which has a radius less than or equal to 3 kilometres;

“station” means a station for wireless telegraphy;

“UHF Band I” means that part of the radio frequency spectrum between 410.00000 MHz and 449.49375 MHz;

“UHF Band II” means that part of the radio frequency spectrum between 453.00625 MHz and 466.08750 MHz;

“VHF Band I” means that part of the radio frequency spectrum between 55.75 MHz and 68.0 MHz;

“VHF Band II” means that part of the radio frequency spectrum between 177.20625 MHz and 207.49375 MHz;

“VHF broadcasting band” means that part of the radio frequency spectrum between 87.5 MHz and 108.0 MHz;

“VHF High Band” means that part of the radio frequency spectrum between 165.04375 MHz and 173.09375 MHz;

“VHF Low Band” means that part of the radio frequency spectrum between 68.08125 MHz and 87.49375 MHz; and

“VHF Mid Band” means that part of the radio frequency spectrum between 137.96250 MHz and 165.04375 MHz.

(2) Where these Regulations provide for the prescribed sum to be calculated by reference to a number of any of the following things—

- (a) base stations;
- (b) channels;
- (c) congestion areas;
- (d) fixed links;
- (e) grid squares;
- (f) mobile stations;
- (g) national channels;
- (h) population;
- (i) regional channels;
- (j) slots;
- (k) stations,

the number shall be taken to be the number the use of which is authorised by the licence at the prescribed time.

(3) In relation to a Transmission of National and Local Radio Broadcasting Services Licence and a Community Radio Licence, a reference to the licensee’s coverage is a reference to the total population covered by the transmitters which the licensee is authorised to use in the medium wave broadcasting band or the VHF broadcasting band (as the case may be) as specified in the licence granted to the licensee, and “covered” shall be construed accordingly.

(4) In relation to a Coastal Station Radio (International) Licence, a Coastal Station Radio (UK) Licence, a Coastal Station Radio (International) Area Defined Licence and a Coastal Station Radio (UK) Area Defined Licence—

(a) “excluded channels” means:

- (i) channels 0 (156.000 and 160.600 MHz), 00 (161.225 MHz), 10 (156.500 MHz), 67 (156.375 MHz) and 73 (156.675 MHz), when used solely to assist Her Majesty’s Coastguard, and when used solely to assist the Secretary of State with oil pollution control activities; and
- (ii) 6 (156.300 MHz), 8 (156.400 MHz), 13 (156.650 MHz), 15 (156.750 MHz), 16 (156.800 MHz), 17 (156.850 MHz), 23 (157.150 and 161.750 MHz), 70 (156.525 MHz), 72 (156.625 MHz)

MHz), 75 (156.775 MHz), 76 (156.825 MHz), 77 (156.875 MHz), 84 (157.225 and 161.825 MHz) and 86 (157.325 and 161.925 MHz); and

(b) a reference to an international maritime channel means a channel specified in the table in Appendix 18 to the 2008 edition of the Radio Regulations<sup>(35)</sup>.

(5) In relation to a Programme Making and Special Events Fixed Site Licence, a Programme Making and Special Events Link Licence, a Programme Making and Special Events Low Power Licence, a UK Wireless Microphone (Annual) Licence and a UK Wireless Microphone (Biennial) Licence—

- (a) “area” in relation to a channel specified in such a licence refers to an area with a population coverage below 3 million individuals;
- (b) “designated website” means the website address (at [www.jfmg.co.uk](http://www.jfmg.co.uk) or at such other website address as may be notified by OFCOM to persons who, in their opinion, are likely to be affected by any change of address by publishing such a notice on OFCOM’s website, [www.ofcom.org.uk](http://www.ofcom.org.uk)) of OFCOM’s agents managing and licensing in the classes of licence set out under the heading of Programme Making and Special Events in Schedule 2;
- (c) “multi use type (1)” in relation to a channel specified in such a licence refers to a maximum of 60 periods with each such period not exceeding 48 hours;
- (d) “multi use type (2)” in relation to a channel specified in such a licence refers to a maximum of 480 periods with each such period not exceeding 48 hours;
- (e) “occasional use” in relation to a channel specified in such a licence refers to a period not exceeding 48 hours;
- (f) “premium case” means a case where at the applicant’s request such a licence is granted or varied outside office hours; and for the purposes of this definition “office hours” means 09.00 to 17.00 hours from Monday to Friday other than on a day which is a bank holiday in England and Wales;
- (g) “primary” in relation to a channel specified in such a licence refers to use at any time;
- (h) “programme making” includes the making of a programme for broadcast, the making of a film presentation, advertisement or audio or video tape, and the staging or performance of an entertainment, sporting or other public event;
- (i) “programme sound link” in relation to a channel specified in such a licence refers to a channel used to transmit the material produced in programme making from a fixed transmission station to a fixed receiving station;
- (j) “restricted service programme sound link” in relation to a channel specified in such a licence refers to a channel used to transmit the material produced in programme making from a fixed transmission station to a fixed receiving station where the transmission is for a period not exceeding thirty consecutive days;
- (k) “secondary” in relation to a channel specified in such a licence refers to use when the channel or band is not being used by another licensee under a licence which authorises such use as a primary channel;
- (l) “shared” in relation to a channel specified in such a licence refers to use at the same time as such a channel may be used by a licensee under another licence; and
- (m) “variation” in relation to such a licence refers to the addition of a channel to the channel specified in such licence;

and for the purpose of determining “population coverage” as referred to above, reference shall be made as appropriate to—

- (i) the estimated mid-year resident population for England and Wales for 2000 as shown in the “Office of National Statistics Population Estimates Mid-2000 for England and Wales” published in August 2001;

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<sup>(35)</sup> The Radio Regulations are made under Article 13 of the Constitution of the International Telecommunication Union (‘the ITU’); the Constitution and Convention of the ITU were adopted in Geneva in 1992 and ratified by the United Kingdom in 1996.



- (ii) the estimated mid-year resident population for Scotland for 2000 as shown in the “Mid-Year Population Estimates, Scotland” published in June 2001; and
- (iii) the estimated mid-year resident population for Northern Ireland for 2000 as shown in the “Annual Report of the Registrar General for Northern Ireland” published in November 2001.

(6) In relation to a Satellite (Earth Station Network) Licence “network” means a uni- or bi-directional service from any number of earth station terminals to a single geo-stationary orbit satellite transponder transmitting in the earth to space direction.

## Revocation

3. The Regulations set out in Schedule 1 are hereby revoked.

## Licence charges and time of payment

4.— Subject to paragraphs (2) to (10) and to regulations 5 and 6, there shall be paid to OFCOM by the licensee—

- (a) on the issue of the licence and on the variation of the licence where such variation is prescribed in Schedule 2; and
- (b) on the last day of the period of twelve, twenty-four, thirty-six or (as the case may be) sixty months prescribed in Schedule 2, if any, in respect of the class of licence in question (the “prescribed payment interval”) and on the last day of each subsequent prescribed payment interval thereafter (the first prescribed payment interval having begun on the day of the issue of the licence) for which the licence continues in force,

in relation to a licence of a class listed in Schedule 2—

- (c) the fixed sum specified in; or
- (d) the variable sum determined in accordance with the provisions of,

that Schedule.

(2) Except for the classes of licence listed under the heading “Programme Making and Special Events” in Schedule 2 and the Self Co-ordinated Links licence class (which is listed under the heading “Fixed Links” in Schedule 2), where a licence is issued for a period less than a year, the sum payable shall, subject to paragraph (3), be such sum as represents one-twelfth of the prescribed sum multiplied by the number of complete and part-complete months to the expiry of the licence.

(3) The sum payable in accordance with paragraph (2) shall:

- (a) where such sum represents a fraction of a whole pound sterling be rounded up to the nearest pound sterling; and
- (b) be subject to a minimum of £20.

(4) Paragraph (2) shall, in respect of all classes of licence other than the “Point to Point Fixed Links” licence class (which is listed under the heading “Fixed Links” in Schedule 2), only apply to a licence in respect of which the fee otherwise payable for such licence is £75 or more per annum.

(5) Paragraph (7) shall apply to a licensee where—

- (a) a prescribed sum is payable by that licensee in respect of a licence under paragraph (1);
- (b) the licence is of one of the following classes—
  - (i) the classes listed under the heading “Broadcasting” in Schedule 2;
  - (ii) the classes listed under the heading “Business Radio” in Schedule 2;
  - (iii) the classes listed under the heading “Fixed Links” in Schedule 2;
  - (iv) the classes listed under the heading “Public Wireless Networks” in Schedule 2; or
  - (v) the classes listed under the heading “Satellite Services” in Schedule 2;
- (c) the licence is granted for a period of a year or longer; and

(d) the prescribed sum due for payment by the licensee is in excess of £100,000.

(6) Paragraph (7) shall also apply to a licensee where—

- (a) prescribed sums are payable by that licensee under paragraph (1) in respect of more than one licence where all of those licences are of the same class and that class is one of the classes listed in paragraph (5)(b);
- (b) each of those prescribed sums is due for payment by the licensee at the same prescribed time in accordance with paragraph (1);
- (c) each of the prescribed sums is in respect of licences granted for a period of a year or longer; and
- (d) the total of the prescribed sums due for payment by the licensee are in excess of £100,000.

(7) If OFCOM receive notice from a licensee to which this paragraph applies of the licensee's intention to make payment in ten equal instalments of a sum equal to the prescribed sum referred to in paragraph (5) or equal to the total of the prescribed sums referred to in paragraph (6)(d), the licensee—

- (a) shall not be required to make payment at the prescribed time other than in accordance with this paragraph; and
- (b) shall make payment of the sum in ten equal instalment payments with the first instalment to be paid to OFCOM on the day which shall be the same day as the prescribed time when the prescribed sum or the prescribed sums were to be paid to OFCOM and each subsequent instalment to be paid on the same day in each of the nine consecutive months thereafter (or in a month in which there is no such day, on the last day of the month).

(8) Where at any time the licensee fails to make payment in accordance with paragraph (7), the total of the outstanding instalment payments shall become immediately due for payment.

(9) No sums shall be payable to OFCOM in respect of the issue of a licence in order to effect a transfer of rights and obligations under a licence to another person under regulation 8(5) of the 2004 Regulations.

(10) For any licence issued in order to effect a transfer under the 2004 Regulations, the prescribed payment interval shall be treated as to commence and expire at the times when the corresponding prescribed payment interval would have commenced and expired under the licence from which the rights and obligations were transferred had the transfer not been made.

### Concessionary licence charges

**5.**— This regulation applies where a relevant licence is granted to an applicant, or held by a licensee, which—

- (a) is a charity; and
- (b) has as its object the safety of human life in an emergency.

(2) The sum to be paid by a qualifying charity to OFCOM on the issue of a relevant licence, and on the last day of each of the prescribed payment intervals (if any), shall be one half of the prescribed sum. Where the sum so payable to OFCOM represents a fraction of a whole pound sterling then the sum payable by the qualifying charity shall be rounded up to the nearest whole pound sterling.

(3) In this regulation—

“charity” means a person who—

- (a) being subject to the laws of England and Wales, or Scotland, or Northern Ireland, is a charity within the meaning of section 506(1) of the Income and Corporation Taxes Act 1988<sup>(36)</sup>;
- (b) being subject to the laws of the Isle of Man, is registered as a charity under the Charities Registration Act 1989<sup>(37)</sup>;
- (c) being subject to the laws of Guernsey, is a member for the time being of the Association of Guernsey Charities; or
- (d) being subject to the laws of Jersey, is a member for the time being of the Association of Jersey Charities; and

<sup>(36)</sup> 1988 c.1

<sup>(37)</sup> An Act of Tynwald

“qualifying charity” is a body falling within paragraph (1); and

“relevant licence” means a licence of one of the following classes—

- (i) all of the classes listed under the heading “Aeronautical” in Schedule 2;
- (ii) all of the classes listed under the heading “Business Radio” in Schedule 2; and
- (iii) all of the classes listed under the heading “Maritime” in Schedule 2 apart from Ship Radio and Ship Portable Radio.

### Other licence charges

6. Where a sum is not prescribed by regulations made under section 12 of the Act whether on the issue of a licence or subsequently, there shall be paid to OFCOM such sum as OFCOM may in the particular case determine.

[Date] [Name]  
[ ] of the Office of Communications  
For and by authority of the Office of Communications

## SCHEDULE 1 REVOCATIONS

Regulation 3

<i>(1)</i> <i>Regulations Revoked</i>	<i>(2)</i> <i>References</i>
The Wireless Telegraphy (Licence Charges) Regulations 2005	S.I. 2005/1378
The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2006	S.I. 2006/2894
The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2007	S.I. 2007/2326
The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008	S.I. 2008/139
The Wireless Telegraphy (Licence Charges) (Amendment) (No.2) Regulations 2008	S.I. 2008/2106
The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2009	S.I. 2009/66

## SCHEDULE 2

Regulation 4

### LICENCE CHARGES AND PAYMENT INTERVALS

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
<b>Aeronautical</b>			
Aeronautical Ground Station (Air Traffic/	£150		12 months

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
Ground Movement Control)			
Aeronautical Ground Station (Air/Ground Communications Services)	£100		12 months
Aeronautical Ground Station (Airfield Flight Information Service)	£100		12 months
Aeronautical Ground Station (Operations Control)	£250		12 months
Aeronautical Ground Station (General Aviation)	£25		12 months
Aeronautical Ground Station (Fire)	£25		12 months
Aeronautical Ground Station (High Frequency)	£350		12 months
Aeronautical Ground Station (Offshore Platform)	£250		12 months
Aeronautical Radar	£50		12 months
Aeronautical Navigation Aid Stations		£50 for each navigational aid station.	12 months
Aircraft		(a) £20 for each aircraft which has an approved maximum take-off weight of not more than 3,200 kg.	12 months
		(b) £150 for each aircraft which has an approved maximum take-off weight of more than 3,200 kg but not more than 14,000 kg.	12 months
		(c) £350 for each aircraft which has an approved maximum take-off weight of more than 14,000 kg.	12 months
Aircraft (Transportable)	£15		12 months
<b>Amateur Band</b>			
Amateur Radio		£20 for each licence that is not applied for electronically; no charge for persons aged 75 years or over.	
<b>Broadcasting</b>			
Restricted Radio Services Transmission (Class A—Freely Radiating)		(a) £15 per day for each medium wave broadcasting band frequency.	
		(b) £25 per day where the power of transmission does not exceed 1 W erp	

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		for each VHF broadcasting band frequency.	
		(c) £40 per day where the power of transmission exceeds 1 W erp for each VHF broadcasting band frequency.	
Restricted Radio Services Transmission (Class B—Radiating Cable)	£100		12 months
Restricted Radio Services Transmission (Class C—Freely Radiating Very Low Power)	£100		12 months
Transmission of National and Local Radio Broadcasting Services		(a) For any number of transmitters in the medium wave broadcasting band—	12 months
		(i) £226, where coverage is of fewer than 100,000 people;	
		(ii) £339 per complete 100,000 people covered, any final group of fewer than 100,000 people being disregarded, where coverage is of 100,000 people or more.	
		(b) For any number of transmitters in the VHF broadcasting band—	12 months
		(i) £339, where coverage is of fewer than 100,000 people;	
		(ii) £509 per complete 100,000 people covered, any final group of fewer than 100,000 people being disregarded, where coverage is of 100,000 people or more.	
Community Radio	£250		12 months
Self-help TV Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts – BBC)	£283,708	£75 for each digital Self-help relay	60 months
Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts – Independent Television Networks)	£333,243		12 months
<b>Business Radio</b>			
Business Radio (GSM-R Railway use)		£158,400 for each 2 x 200 kHz channel.	12 months

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
Business Radio (Simple UK)	£75		60 months
Business Radio (Suppliers Light)	£75		60 months
Business Radio (Simple Site)	£75		60 months
Business Radio (Area defined)		For each authorisation under a licence of use of a 6.25 kHz channel for one of the areas set out in Column 1 of Schedule 6 in a high usage band, medium usage band or low usage band, the appropriate sum payable for that area and for that band which is indicated in Column 2, 3, 4, or 5 of Schedule 6, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
Business Radio (Technically Assigned)		(a) For each authorisation under a licence of use of a 6.25 kHz channel in a high usage band, medium usage band or low usage band the appropriate sum payable is that determined in accordance with Parts 1 to 3 of Schedule 7, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
		(b) For each authorisation under a licence of use of a 6.25 kHz channel for only 250 milliseconds in each two seconds or for only 500 milliseconds in each four seconds for each base station in a high usage band, medium usage band or low usage band the appropriate sum payable is one eighth of the sum determined in accordance with Parts 1 to 3 of Schedule 7, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
Public Safety Radio (380-385 MHz paired with 390-395 MHz)		(a) £15,578 for each channel for the area of Great Britain excluding the core London area and the outer London area.	12 months
		(b) £3,647 for each channel in the outer London area.	12 months
		(c) £107 for each channel in the core London area.	12 months

**Fixed Links**

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
Point to Point Security CCTV Services		(a) £720 for each hub with a bandwidth less than or equal to 56 MHz.	12 months
		(b) £885 for each hub with a bandwidth greater than 56 MHz but less than, or equal to, 140 MHz.	12 months
		(c) £1,030 for each hub with a bandwidth greater than 140 MHz but less than, or equal to, 250 MHz.	12 months
		(d) £1,155 for each hub with a bandwidth greater than 250 MHz but less than, or equal to, 308 MHz.	12 months
		(e) Where a hub listed in paragraphs (a) to (d) is added after the issue of the licence, such sum as represents one-twelfth of the prescribed sum on the issue of the licence, multiplied by the number of complete calendar months beginning with the date of the addition of the hub to the next anniversary of the issue of the licence.	
Point to Point Fixed Links		(a) Subject to paragraphs (b) and (d), for each co-ordinated bi-directional fixed link, the appropriate sum calculated in accordance with the formula set out in Part 1 of Schedule 3.	12 months
		(b) For each co-ordinated bi-directional fixed link added after the issue of the licence and where the additional links are operating co-channel and cross-polar, 50 per cent of the prescribed sum specified in paragraph (a).	12 months
		(c) For each uni-directional fixed link, 75 per cent of the prescribed sum specified in paragraph (a).	12 months
		(d) Where a temporary co-ordinated bi-directional or uni-directional fixed link (other than an additional link referred to in paragraph (b)) is added after the issue of the licence, such sum as represents one-twelfth of the prescribed sum on the issue of the licence, multiplied by the number of complete calendar months beginning with the date of the addition of the link to the next anniversary of the issue of the licence.	
Self Co-ordinated Links		£50 for each 65 GHz, 71-76 GHz and 81-86 GHz fixed link.	12 months
Scanning Telemetry		(a) £410 for each channel used at a base station hub which is not subject to national channel arrangements.	12 months
		(b) £7,920 for each 2 x 12.5 kHz	12 months

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		national channel.	
		(c) For each 1 x 12.5 kHz channel, 50 per cent of the prescribed sum specified in paragraphs (a) or (b) depending on whether or not the channel is used at a base station hub which is not subject to national channel arrangements.	12 months
<b>Fixed Wireless Access</b>			
Fixed Wireless Access (3.5, 3.6, 10 GHz – Guernsey)	£5,000		60 months
Fixed Wireless Access (3.5, 3.6, 10 GHz – Isle of Man)	£5,000		60 months
Fixed Wireless Access (3.5, 3.6, 10 GHz – Jersey)	£5,000		60 months
Spectrum Access (3.5, 3.6 GHz)		(a) £8,436 for each 1 MHz national slot, where co-ordination is required with earth stations.	12 months
		(b) £2,226 for each 1 MHz national slot, where co-ordination is required with earth stations and fixed links.	12 months
Fixed Wireless Access (5.8 GHz)		£1 for each terminal, subject to a minimum fee of £50 for up to 49 terminals.	12 months
Fixed Wireless Access (28 GHz Guernsey)		(a) £1,800 for each 2 x 112 MHz channel in the 28.0525–28.1645 GHz, paired with 29.0605–29.1725 GHz, bands.	12 months
		(b) £1,800 for each 2 x 112 MHz channel in the 28.1925–28.3045 GHz, paired with 29.2005–29.3125 GHz, bands.	12 months
		(c) £1,800 for each 2 x 112 MHz channel in the 28.3325–28.4445 GHz, paired with 29.3405–29.4525 GHz, bands.	12 months
Fixed Wireless Access (28 GHz Isle of Man)		(a) £2,133 for each 2 x 112 MHz channel in the 28.0525–28.1645 GHz, paired with 29.0605–29.1725 GHz, bands.	12 months
		(b) £2,133 for each 2 x 112 MHz channel in the 28.1925–28.3045 GHz, paired with 29.2005–29.3125 GHz, bands.	12 months
		(c) £2,133 for each 2 x 112 MHz channel in the 28.3325–28.4445 GHz, paired with 29.3405–29.4525 GHz, bands.	12 months



*The sum payable on the issue of the licence and on the expiry of each prescribed payment interval*

<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
Fixed Wireless Access (28 GHz Jersey)		(a) £2,533 for each 2 x 112 MHz channel in the 28.0525–28.1645 GHz, paired with 29.0605–29.1725 GHz, bands.	12 months
		(b) £2,533 for each 2 x 112 MHz channel in the 28.1925–28.3045 GHz, paired with 29.2005–29.3125 GHz, bands.	12 months
		(c) £2,533 for each 2 x 112 MHz channel in the 28.3325–28.4445 GHz, paired with 29.3405–29.4525 GHz, bands.	12 months
<b>Maritime</b>			
Coastal Station Radio (Marina)		£75 for each base station and associated mobile stations for channels 80 (161.625 MHz), M (157.850 MHz) and M2 (161.425 MHz).	12 months
Coastal Station Radio (International)		(a) For licences to use international maritime channels 9 (156.450 MHz), 11 (156.550 MHz), 12 (156.600 MHz), 14 (156.700 MHz), 68 (156.425 MHz), 69 (156.475 MHz), 71 (156.575 MHz) and 74 (156.725 MHz) for each authorisation under a licence of use of a 6.25 kHz channel for a base station in one of the areas in Column 1 of Schedule 9 for a small coverage area, a medium coverage area or a large coverage area, the appropriate sum payable for those areas which is indicated in Column 2, 3 or 4 of Schedule 9, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
		(b) For licences to use international maritime channels 87 (157.375 MHz) and 88 (157.425 MHz) for each authorisation under a licence of use of a 6.25 kHz channel for a base station £18.75, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		(c) For a licence to use any other international maritime channels £75 for each 2 x 25 kHz channel, provided that excluded channels shall not be taken into account.	12 months
Coastal Station Radio (International) Area Defined		(a) For licences to use international maritime channels 9 (156.450 MHz), 11 (156.550 MHz), 12 (156.600 MHz), 14 (156.700 MHz), 68 (156.425 MHz), 69 (156.475 MHz), 71 (156.575 MHz) and 74 (156.725 MHz) for each authorisation under a licence of use of a 6.25 kHz channel for one of the areas in Column 1 of Schedule 10 the appropriate sum payable for that area which is indicated in Column 2 of Schedule 10, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
		(b) For licences to use international maritime channels 87 (157.375 MHz) and 88 (157.425 MHz) for each authorisation under a licence of use of a 6.25 kHz channel for an area of the size indicated in Column 1 of Schedule 11 the appropriate sum payable for that area which is indicated in Column 2 of Schedule 11, provided that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
		(c) For a licence to use any other international maritime channel for each authorisation under a licence of use of a 2 x 25 kHz channel for an area of the size indicated in Column 1 of Schedule 12 the appropriate sum payable for that area which is indicated in Column 2 of Schedule 12, provided that excluded channels shall not be taken into account and that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
Coastal Station Radio (UK)		For each authorisation under a licence of use of a 6.25 kHz channel for a base station in one of the areas in Column 1 of Schedule 13 for a small coverage area, a medium coverage area or a	12 months

*The sum payable on the issue of the licence and on the expiry of each prescribed payment interval*

<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		large coverage area, the appropriate sum payable for those areas which is indicated in Column 2, 3 or 4 of Schedule 13, provided that excluded channels shall not be taken into account and that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	
Coastal Station Radio (UK) Area Defined		For each authorisation under a licence of use of a 6.25 kHz channel for one of the areas in Column 1 of Schedule 14 the appropriate sum payable for that area which is indicated in Column 2 of Schedule 14, provided that excluded channels shall not be taken into account and that where the total sum payable in respect of a licence is less than £75 then the sum payable is £75.	12 months
Coastal Station Radio (Training School)	£20		
Differential Global Positioning System Maritime Navigational Aids and Radar		£1,000 for each channel per medium frequency station. £40 for each frequency per navigational aid or radar station	12 months
Maritime Radio (Suppliers and Demonstration)	£75		60 months
Ship Portable Radio		£20 for each licence that is not applied for electronically.	
Ship Radio		£20 for each licence that is not applied for electronically.	
<b>Programme Making and Special Events</b>			
Programme Making and Special Events Fixed Site		(a) For the issue of a licence—  (i) £28 for each channel per site in respect of a single channel talk-back or a single channel radio microphone; (ii) £168 for each channel per site in respect of a multi-channel talk-back, a multi-channel radio microphone or a wideband channel; plus— (iii) in a premium case, £55. (b) For the variation of a licence— (i) subject to paragraph (b)(ii), where a channel listed in paragraph (a)(i) to(ii) is added, such sum as represents one-twelfth of the sum payable for the issue	

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
Programme Making and Special Events Link		<p>of a licence for the type of channel to which the additional channel belongs, multiplied by the number of complete and part-complete calendar months beginning with the day of the addition of the channel to the next anniversary of the issue of the licence;</p> <p>(ii) where the aggregate sum payable for a variation of a licence in this paragraph in any case other than a premium case would otherwise be less than £28, a charge of £28 only; plus—</p> <p>(iii) in a premium case, £55.</p> <p>(a) Subject to paragraph (a)(xlv), for the issue of a licence—</p> <p>(i) £2.75 for each channel of 12.5 kHz in the band 26–65 MHz for occasional use;</p> <p>(ii) £8.50 for each channel of 12.5 kHz in the band 65–470 MHz for occasional use;</p> <p>(iii) £2.75 for each channel of 12.5 kHz in the band 470–1,000 MHz for occasional use;</p> <p>(iv) £17 for each channel (not being a telemetry or telecommand channel) of 0.5 MHz in the band 1–2 GHz for occasional use;</p> <p>(v) £17 for each telemetry or telecommand channel of 5MHz in the band 1–2 GHz for occasional use;</p> <p>(vi) £28 for each channel of 5 MHz in the band 2–5 GHz for occasional use;</p> <p>(vii) £17 for each channel of 5 MHz in the band 5–8 GHz for occasional use;</p> <p>(viii) £8.50 for each channel of 5 MHz above 8 GHz for occasional use;</p> <p>(ix) £153 for each channel of 12.5 kHz in the band 26–65 MHz for multi use type (1) channels;</p> <p>(x) £472 for each channel of 12.5 kHz in the band 65–470 MHz for multi use type (1) channels;</p> <p>(xi) £153 for each channel of 12.5 kHz in the band 470–1,000 MHz for multi use type (1) channels;</p> <p>(xii) £944 for each channel of 0.5 MHz in the band 1–2 GHz for multi use type (1) channels;</p> <p>(xiii) £1,554 for each channel of 5</p>	

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		MHz in the band 2–5 GHz for multi use type (1) channels; (xiv) £944 for each channel of 5 MHz in the band 5–8 GHz for multi use type (1) channels; (xv) £472 for each channel of 5 MHz above 8 GHz for multi use type (1) channels; (xvi) £990 for each channel of 12.5 kHz in the band 26–65 MHz for multi use type (2) channels; (xvii) £3,060 for each channel of 12.5 kHz in the band 65–470 MHz for multi use type (2) channels; (xviii) £990 for each channel of 12.5 kHz in the band 470–1,000 MHz for multi use type (2) channels; (xix) £6,120 for each channel of 0.5 MHz in the band 1–2 GHz for multi use type (2) channels; (xx) £10,080 for each channel of 5 MHz in the band 2–5 GHz for multi use type (2) channels; (xxi) £6,120 for each channel of 5 MHz in the band 5–8 GHz for multi use type (2) channels; (xxii) £3,060 for each channel of 5 MHz above 8 GHz for multi use type (2) channels; (xxiii) £22 for each primary channel of 12.5 kHz in the band 26-65 MHz for each area; (xxiv) £113 for each primary channel of 12.5 kHz in the band 65-470 MHz for each area; (xxv) £22 for each primary channel of 12.5 in the band 470-1,000 MHz for each area; (xxvi) £130 for each primary channel of 0.5 MHz in the band 1-2 GHz for each area; (xxvii) £225 for each primary channel of 5MHz in the band 2-5 GHz for each area; (xxviii) £130 for each primary channel of 5MHz in the band 5-8 GHz for each area; (xxix) £65 for each primary channel of 5 MHz above 8 GHz for each area; (xxx) £11 for each secondary channel of 12.5 kHz in the band 26-65 MHz for	

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		each area;	
		(xxxi) £57 for each secondary channel of 12.5 kHz in the band 65-470 MHz for each area;	
		(xxxii) £11 for each secondary channel of 12.5 kHz in the band 470-1,000 MHz for each area;	
		(xxxiii) £65 for each channel of 0.5 MHz in the band 1-2 GHz for each area;	
		(xxxiv) £113 for each secondary channel of 5 MHz in the band 2-5 GHz for each area;	
		(xxxv) £65 for each secondary channel of 5 MHz in the band 5-8 GHz for each area;	
		(xxxvi) £33 for each secondary channel of 5 MHz above 8 GHz for each area;	
		(xxxv) £52 for each channel of 12.5 kHz in the band 26-65 MHz for programme sound link use;	
		(xxxvii) £246 for each channel of 0.5 MHz in the band 1517–1525 MHz for programme sound link use;	
		(xxxviii) £14 for each channel of 12.5 kHz in the band 26-65 MHz for restricted service programme sound link use;	
		(xxxix) £43 for each channel of 12.5 kHz in the band 65-470 MHz for restricted service programme sound link use;	
		(xl) £14 for each channel of 12.5 kHz in the band 470-1,000 MHz for restricted service programme sound link use;	
		(xli) £120 for each channel of 0.5 MHz in the band 1517–1525 MHz for restricted service programme sound link use;	
		(xlii) £12 for each 10 MHz channel in the band 2-5 GHz for each licence for digital wireless camera use;	
		(xliii) £666 for each 10 MHz channel in the band 2-5 GHz for multi use type (1) channels for each licence for digital wireless camera use;	
		(xliv) £4,320 for each 10 MHz channel in the band 2-5 GHz for multi use type (2) channels for each licence for digital	

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		wireless camera use; (xlv) where the aggregate sum payable on the issue of a licence in this paragraph in any case other than a premium case would otherwise be less than £28, a charge of £28 only; plus— (xlvi) in a premium case, £55. (b) For the variation of a licence— (i) subject to paragraph (b)(ii), where a channel listed in paragraph (a)(xxiii) to(xxxvii) is added, such sum as represents one-twelfth of the sum payable for the issue of a licence for the type of channel to which the additional channel belongs, multiplied by the number of complete and part-complete calendar months beginning with the day of the addition of the channel to the next anniversary of the issue of the licence; (ii) where the aggregate sum payable for a variation of a licence in this paragraph in any case other than a premium case would otherwise be less than £28, a charge of £28 only; plus— (iii) in a premium case, £55.	
Programme Making and Special Events Audio Distribution Services		(a) £14 for each channel of 12.5 kHz in the band 26-65 MHz; (b) £43 for each channel of 12.5 kHz in the band 65-470 MHz; (c) £14 for each channel of 12.5 kHz in the band 470-1,000 MHz; (d) £120 for each channel of 0.5 MHz in the band 1517-1525 MHz;	
Programme Making and Special Events Low Power		(a) Subject to paragraph (a)(viii), for the issue of a licence—  (i) £8.50 for each occasional use channel for a single channel radio microphone; (ii) £472 for each multi use type (1) channel for a single channel radio microphone; (iii) £3,060 for each multi use type (2) channel for a single channel radio microphone; (iv) £70 for each primary single radio microphone for each area; (v) £27 for each secondary single radio	

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		<p>microphone for each area;</p> <p>(vi) £51 for each occasional use of a multi-channel radio microphone or a single wideband channel;</p> <p>(vii) £2,831 for each multi use type (1) channel of a multi-channel radio microphone or a single wideband channel;</p> <p>(viii) where the aggregate sum payable on the issue of a licence in this paragraph in any case other than a premium case would otherwise be less than £28, a charge of £28 only; plus -</p> <p>(ix) in a premium case, £55.</p> <p>(b) For the variation of a licence—</p> <p>(i) subject to paragraph (b)(ii), where a channel listed in paragraph (a)(iv) or (v) is added, such sum as represents one-twelfth of the sum payable for the issue of a licence for the type of channel to which the additional channel belongs, multiplied by the number of complete and part-complete calendar months beginning with the day of the addition of the channel to the next anniversary of the issue of the licence;</p> <p>(ii) where the aggregate sum payable for a variation of a licence in this paragraph in any case other than a premium case would otherwise be less than £28, a charge of £28 only; plus—</p> <p>(ii) in a premium case, £55.</p>	
UK Wireless Microphone (Annual)		<p>(a) £75 for each shared multi-channel or wideband channel in the British Islands, where the licensee has applied for the licence using the facilities for application and payment on the designated website.</p> <p>(b) In any case other than that specified in paragraph (a), £85 for each shared multi-channel or wideband channel in the British Islands.</p>	12 months
UK Wireless Microphone (Biennial)		<p>(a) £135 for each shared multi-channel or wideband channel in the British Islands, where the licensee has applied for the licence using the facilities for application and payment on the designated website.</p> <p>(b) In any case other than that specified in paragraph (a), £155 for each shared multi-channel or wideband channel in</p>	24 months



<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
		the British Islands.	
<b>Public Wireless Networks</b>			
Public Wireless Networks (2G Cellular Operator)		(a) £142,560 for each 2 x 200 kHz national channel in the 880.0-960.0 MHz band.	12 months
		(b) £110,880 for each 2 x 200 kHz national channel in the 1710.0-1880.0 MHz band.	12 months
Public Wireless Networks (2G and 3G Cellular Operator – Guernsey)		£320 for each 2 x 200 kHz channel or slot. £4,000 for each 1 x 5 MHz channel or slot. £8,000 for each 2 x 5 MHz channel or slot.	12 months
Public Wireless Networks (2G and 3G Cellular Operator – Jersey)		£320 for each 2 x 200 kHz channel or slot. £4,000 for each 1 x 5 MHz channel or slot. £8,000 for each 2 x 5 MHz channel or slot.	12 months
Public Wireless Networks (2G and 3G Cellular Operator – Isle of Man)		£320 for each 2 x 200 kHz channel or slot. £4,000 for each 1 x 5 MHz channel or slot. £8,000 for each 2 x 5 MHz channel or slot.	12 months
<b>Satellite Services</b>			
Satellite (Earth Station Network)	£200	For each terminal requiring technical coordination by Ofcom £200.	12 months
Satellite (Earth Station - Non-Fixed Satellite Service)	£500		12 months
Satellite (Earth Station - Non-Geostationary)	£500		12 months
Satellite (Permanent Earth Station)		For each site (the area contained within a circle of a radius of 500 metres centred on a point defined by the licensee), the appropriate sum calculated in accordance with the formula set out in Part 1 of Schedule 4.	12 months
Satellite (Transportable Earth Station)		For each earth station operating in one of the bands specified in columns 2, 3 or 4 of the table in Part 3 to Schedule 4, the appropriate sum payable in accordance with that Part of that Schedule as determined by the power and bandwidth of the earth station.	12 months

<i>The sum payable on the issue of the licence and on the expiry of each prescribed payment interval</i>			
<i>Class of licence</i>	<i>Fixed sums</i>	<i>Variable sums</i>	<i>Prescribed payment interval</i>
Satellite (Complementary Ground Components of a Mobile Satellite System)		£554,400 for each 2 x 1 MHz national channel in the 1980 – 2010 MHz and 2170 – 2200 MHz bands.	12 months
<b>Science and Technology</b>			
Non-Operational Temporary Use		£50 for each channel per location each month.	
Non-Operational Development		£50 for each station or apparatus per location.	12 months
Miscellaneous (a) for up to 12 months	£20		
Miscellaneous (b) for 12 to 60 months	£50		
Ground Probing Radar	£50		36 months.

## SCHEDULE 3

Schedule 2

FORMULA FOR CALCULATING THE APPROPRIATE SUM FOR THE  
POINT TO POINT FIXED LINKS LICENCE

## PART 1

## FORMULA

## 1. In this Schedule—

- (a) “the appropriate sum” means the amount in pounds sterling, which is payable for a Point to Point Fixed Links Licence, calculated in accordance with the formula set out in paragraph 2; and
- (b) “*Availability*” means the minimum percentage of time that the fixed link is capable of functioning as set out in the licensee’s licence.

2. The formula is  $AS = Sp \times Bwf \times Bf \times Plf \times Avf$ 

where—

“*AS*” means the appropriate sum;“*Avf*” means the Availability Factor, being the number in Column 2 of the table set out in Part 5 as determined by the Availability (in per cent) as set out in Column 1 of that table;“*Bf*” means the Band Factor, being the number in Column 2 of the table set out in Part 2 as determined by the range of frequency band (in GHz), if any, of a fixed link set out in Column 1 of that table in which the licensee’s band falls as declared by the licensee on application for a licence;“*Bwf*” means the Bandwidth Factor, subject to paragraph 3, being the number corresponding to the bandwidth (in MHz) of a co-ordinated bi-directional fixed link (or a part thereof) as declared by the licensee on application for a licence;

“*MPL*” means the Minimum Path Length, being the number corresponding to the applicable (depending on the amount of data that can be transmitted over the bandwidth (“the data rate”) or over the channel width for analogue systems) length of the path (in kilometres) specified in Columns 2 and 3 of tables 1 or 2 set out in Part 4 as determined by the range of frequency band (in GHz), if any, of a fixed link set out in Column 1 of those respective tables in which the licensee’s band falls as declared by the licensee on application for a licence;

“*PL*” means the Path Length, being the number corresponding to the distance (in kilometres) between two fixed points of the link as declared by the licensee on application for a licence;

“*Plf*” means the Path Length Factor, being the number in Column 2 of the table set out in Part 3 as determined by the relationship between the *PL* and the *MPL* as set out in Column 1 of that table except for the Channel Islands and the Isle of Man, where *Plf* is 1; and

“*Sp*” means the Spectrum Price, being a fixed sum of £88 per 2 x 1 MHz bandwidth for each co-ordinated bi-directional fixed link.

3. Where the number of the bandwidth (in MHz) of a co-ordinated bi-directional fixed link (or a part thereof) as set out in the licensee’s licence is less than 1.0, the number of the Bandwidth Factor shall be 1.0.

## PART 2

### BAND FACTOR

<i>Column 1: Range of frequency band (fb)(in GHz)</i>	<i>Column 2: Band Factor</i>
$1.35 \leq fb < 2.69$	1.0
$3.60 \leq fb < 4.20$	1.0
$5.92 \leq fb < 7.13$	0.74
$7.42 \leq fb < 7.90$	0.74
$10.70 \leq fb < 11.70$	0.43
$12.75 \leq fb < 15.35$	0.43
$17.30 \leq fb < 19.70$	0.30
$21.20 \leq fb < 23.60$	0.30
$24.50 \leq fb < 29.06$	0.26
$31.00 \leq fb < 31.80$	0.26
$31.80 \leq fb < 33.40$	0.26
$37.00 \leq fb < 39.50$	0.26
$49.20 \leq fb < 57.00$	0.17

## PART 3

### PATH LENGTH FACTOR

<i>Column 1: Relationship between PL and MPL</i>	<i>Column 2: Path Length Factor</i>
$MPL \leq PL$	1
$MPL > PL$	Smaller of $(MPL / PL)^{0.5}$ and 4

## PART 4

## MINIMUM PATH LENGTH

Table 1

<i>Column 1: Range of frequency band (fb)(in GHz)</i>	<i>Column 2: MPL (km) where the data rate is &lt; 2 MBit/s or, for analogue systems, where the channel width is &lt; 2 MHz</i>	<i>Column 3: MPL (km) where the data rate is <math>\geq</math> 2 MBit/s or, for analogue systems, where the channel width is <math>\geq</math> 2 MHz</i>
$1.35 \leq fb < 2.69$	0	30

Table 2

<i>Column 1: Range of frequency band (fb)(in GHz)</i>	<i>Column 2: MPL (km) where the data rate is &lt; 140 MBit/s or, for analogue systems, where the channel width is &lt; 140 MHz</i>	<i>Column 3: MPL (km) where the data rate is <math>\geq</math> 140 MBit/s or, for analogue systems, where the channel width is <math>\geq</math> 140 MHz</i>
$3.60 \leq fb < 4.20$	24.5	16
$5.92 \leq fb < 7.13$	24.5	16
$7.42 \leq fb < 7.90$	15.5	9.5
$10.70 \leq fb < 11.70$	10	6
$12.75 \leq fb < 15.35$	9.5	5.5
$17.30 \leq fb < 19.70$	4	2.5
$21.20 \leq fb < 23.60$	4	2
$24.50 \leq fb < 29.06$	3	2
$31.00 \leq fb < 31.80$	0	0
$31.80 \leq fb < 33.40$	2	1.5
$37.00 \leq fb < 39.50$	0	0
$49.20 \leq fb < 57.00$	0	0

## PART 5

## AVAILABILITY FACTOR

<i>Column 1: The percentage of Availability</i>	<i>Column 2: Availability Factor</i>
Availability $\leq$ 99.9%	0.7
99.9% < Availability < 99.99%	$0.7 + (\text{Availability} \times 100 - 99.9) \times (0.3/0.09)$
99.99% $\leq$ Availability	$1.0 + (\text{Availability} \times 100 - 99.99) \times (0.4/0.009)$

## SCHEDULE 4

FEES PAYABLE FOR SATELLITE (PERMANENT EARTH  
STATION) AND (TRANSPORTABLE EARTH STATION)  
LICENCES

## PART 1

FORMULA FOR CALCULATING THE APPROPRIATE SUM FOR A SATELLITE  
(PERMANENT EARTH STATION) LICENCE

1. In this Part, subject to paragraph 3, “the appropriate sum” means the amount in pounds sterling, which is payable for a Satellite (Permanent Earth Station) Licence, calculated in accordance with the formula set out in paragraph 2.

2. The formula is –

$$AS = \sum_{bands} \left[ 28 \times BF_{band} \times \sqrt{\sum_{paths_{band}} (P_{path} \times BW_{path})} \right]$$

where –

“AS” means the appropriate sum;

“bands” mean the numbers listed in Column 1 of the table set out in Part 2, corresponding to the range of frequency band listed in Column 2 of that table which are authorised by the licence;

“ $BF_{band}$ ” means the band factor applying to each band, being the number in Column 3 of the table set out in Part 2 corresponding to the band listed in Column 1 of the same table;

“ $paths_{band}$ ” means the set of those transmission paths authorised by the licence for which the authorised transmission frequency lies within the frequency range of each band as set out in Column 2 of the table set out in Part 2;

“ $P_{path}$ ” means the authorised peak transmit power (in Watts) at the flange of the antenna of the earth station for each transmission path;

“ $BW_{path}$ ” means the authorised transmit bandwidth (in MHz) for each transmission path; and

“transmission path” means a combination of a satellite earth station transmitter, a satellite receiver, a transmission frequency, and polarisation for which transmissions are authorised by the licence.

3. Where the amount in pounds sterling calculated in accordance with the formula set out in paragraph 2 is less than £500, the appropriate sum shall be £500.

## PART 2

BAND FACTOR FOR CALCULATING THE APPROPRIATE SUM FOR A  
SATELLITE (PERMANENT EARTH STATION) LICENCE

<i>Column 1: band</i>	<i>Column 2: Range of frequency band (fb) (in GHz)</i>	<i>Column 3: Band factor</i>
1	$fb < 5$	2.33
2	$5 \leq fb < 10$	1.72
3	$10 \leq fb < 16$	1.00
4	$16 \leq fb < 24$	0.70
5	$fb \geq 24$	0.60

## PART 3

FEES PAYABLE FOR SATELLITE (TRANSPORTABLE EARTH STATION)  
LICENCES

4. The appropriate sum is the amount in pounds sterling which is payable for each earth station operating in one of the bands specified in Columns 2, 3 or 4 of the table below as determined by the range of  $p$  specified in Column 1 of that table in which the licensee's network falls.

5. In this Part –

- (a) “OMP” means the number corresponding to the number of the Operational Maximum Power (in Watts) as declared by the licensee on application for the earth station licence;
- (b) “ $p$ ” means the product of OMP multiplied by WBW; and
- (c) “WBW” means the number corresponding to the number of the widest bandwidth (in MHz) as declared by the licensee on application for the licence.

<i>Column 1: Range of <math>p</math></i>	<i>Column 2: Fee (£) per earth station in the band 5.925 – 7.075 GHz</i>	<i>Column 3: Fee (£) per earth station in the band 13.78 - 15.5 GHz</i>	<i>Column 4: Fee (£) per earth station in any of the bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 29.4630 GHz</i>
$0 < p \leq 100$	500	300	200
$100 < p \leq 2,500$	2,400	1,400	800
$p > 2,500$	7,400	4,300	2,600

Regulation 2(1)

## SCHEDULE 5

HIGH POPULATION AREA, MEDIUM POPULATION AREA AND LOW  
POPULATION AREA

<i>Grid Square References</i>				
<i>High population area</i>	TQ 000 500			
<i>Medium population areas</i>	NJ 500 000	SJ 000 500	SP 500 000	TA 000 000
	NO 000 000	SJ 500 500	SS 500 500	TF 000 000
	NS 000 500	SJ 500 000	ST 000 500	TG 000 000
	NS 500 500	SK 000 500	ST 500 500	TL 500 500
	NT 000 500	SK 500 500	ST 000 000	TL 000 000
	NW 000 000	SK 000 000	SU 000 500	TL 500 000
	NZ 000 500	SK 500 000	SU 500 500	TM 000 000
	NZ 000 000	SO 500 500	SU 000 000	TQ 500 500
	SD 000 000	SO 500 000	SU 500 000	TQ 000 000
	SD 500 000	SP 000 500	SX 000 500	TQ 500 000
	SE 000 000	SP 500 500	SX 500 500	TR 000 500
	SE 500 000	SP 000 000	SZ 000 500	
<i>Low population areas</i>	All grid square references for 50 kilometre x 50 kilometre areas other than those listed in this Schedule.			

Schedule 2

## SCHEDULE 6

## CHARGES FOR THE BUSINESS RADIO (AREA DEFINED) LICENCE CLASS FOR EACH 6.25 kHz CHANNEL

Column 1 Area	Column 2 Charge for high usage band	Column 3 Charge for medium usage band	Column 4 Charge for low usage band	Column 5 Charge for Band I
<i>UK</i>	£2,475	£2062.50	£825	£150
<i>England</i>	£2,068.75	£1723.75	£689.50	£37.50
<i>Wales</i>	£122.50	£102.50	£40.75	£37.50
<i>Scotland</i>	£213.75	£177.50	£71.25	£37.50
<i>Northern Ireland</i>	£70	£58.75	£23.25	£37.50
<i>High population area</i>	£296.25	£247.50	£98.75	£37.50
<i>Medium population area</i>	£37.50	£31.25	£12.50	£12.50
<i>Low population area</i>	£3.50	£3	£1.25	£1.25

## SCHEDULE 7

Schedule 2

## CHARGES FOR THE BUSINESS RADIO (TECHNICALLY ASSIGNED) LICENCE CLASS

## PART 1

## CHARGES FOR EACH 6.25 kHz CHANNEL AUTHORISED IN A HIGH USAGE BAND

Assignment type	Small Coverage Area		Medium Coverage Area		Large Coverage Area	
	Exclusive basis	Shared basis	Exclusive basis	Shared basis	Exclusive basis	Shared basis
<i>High population area</i>	£50	£25	£185	£92.50	£370	£185
<i>Medium population area</i>	£25	£18.75	£50	£25	£75	£37.50
<i>Low population area</i>	£18.75	£18.75	£23.75	£18.75	£27.50	£18.75



## PART 2

## CHARGES FOR EACH 6.25 kHz CHANNEL AUTHORISED IN A MEDIUM USAGE BAND

	Small Coverage Area		Medium Coverage Area		Large Coverage Area	
	<i>Exclusive basis</i>	<i>Shared basis</i>	<i>Exclusive basis</i>	<i>Shared basis</i>	<i>Exclusive basis</i>	<i>Shared basis</i>
<i>Assignment type</i>						
<i>High population area</i>	£25	£18.75	£92.50	£46.25	£185	£92.50
<i>Medium population area</i>	£21.25	£18.75	£42.50	£21.25	£62.50	£31.25
<i>Low population area</i>	£18.75	£18.75	£20	£18.75	£22.50	£18.75

## PART 3

## CHARGES FOR EACH 6.25 kHz CHANNEL AUTHORISED IN A LOW USAGE BAND

	Small Coverage Area		Medium Coverage Area		Large Coverage Area	
	<i>Exclusive basis</i>	<i>Shared basis</i>	<i>Exclusive basis</i>	<i>Shared basis</i>	<i>Exclusive basis</i>	<i>Shared basis</i>
<i>Assignment type</i>						
<i>High population area</i>	£18.75	£18.75	£18.75	£18.75	£18.75	£18.75
<i>Medium population area</i>	£18.75	£18.75	£18.75	£18.75	£18.75	£18.75
<i>Low population area</i>	£18.75	£18.75	£18.75	£18.75	£18.75	£18.75

## SCHEDULE 8

Regulation 2(1)

HEAVY CONGESTION AREA, MEDIUM CONGESTION AREA, LIGHT  
CONGESTION AREA AND NON-CONGESTION AREA

<i>Grid Square References</i>				
<i>Heavy congestion areas</i>	NW 000 000	TA 000 000	TF 000 000	TM 000 000
	SU 000 000	TQ 000 000	HU 000 500	NZ 500 000
	SE 500 000	TG 500 000	SM 500 000	NS 000 500
	NT 000 500	NZ 000 500	SC 000 500	SD 000 500
	SH 000 500	SJ 000 500	NS 500 500	SU 500 000
	SW 500 000	ST 000 500	TQ 000 500	TR 000 500
	SX 000 500	SZ 000 500	SS 500 500	TQ 500 500
	SX 500 500	SY 500 500	XD 500 500	
<i>Medium congestion areas</i>	HU 000 000	HY 000 000	NO 000 000	TG 000 000
	TR 000 000	SW 000 000	ND 000 500	NJ 500 000
	NO 500 000	NW 500 000	SK 500 000	TF 500 000
	SB 000 500	NT 500 500	SH 500 500	SJ 500 500
	SK 500 500	TM 500 500		
<i>Light congestion areas</i>	NK 000 000	NS 000 000	NU 000 000	NZ 000 000
	SD 000 000	SS 000 000	ST 000 000	NG 500 000
	NH 500 000	NX 000 500	NY 000 500	SE 000 500
	TA 000 500	NH 500 500	NJ 500 500	NM 500 500
	NO 500 500	NW 500 500	SS 500 000	SY 000 500
	ST 500 500	SW 500 500	SZ 500 500	
<i>Non-congestion areas</i>	All grid square references for 50 kilometre x 50 kilometre areas other than those listed in this Schedule.			

## SCHEDULE 9

Schedule 2

CHARGES FOR THE COASTAL STATION RADIO (INTERNATIONAL) LICENCE CLASS FOR INTERNATIONAL MARITIME CHANNELS 9 (156.450 MHz), 11 (156.550 MHz), 12 (156.600 MHz), 14 (156.700 MHz), 68 (156.425 MHz), 69 (156.475 MHz), 71 (156.575 MHz) and 74 (156.725 MHz) FOR EACH 6.25 kHz CHANNEL

Column 1	Column 2	Column 3	Column 4
Area	Charge for Small Coverage Area	Charge for Medium Coverage Area	Charge for Large Coverage Area
<i>Heavy congestion area</i>	£50	£50	£50
<i>Medium congestion area</i>	£31.25	£37.50	£50
<i>Light congestion area</i>	£18.75	£18.75	£25
<i>Non-congested area</i>	£18.75	£18.75	£18.75

## SCHEDULE 10

Schedule 2

CHARGES FOR THE COASTAL STATION RADIO (INTERNATIONAL) AREA DEFINED LICENCE CLASS FOR INTERNATIONAL MARITIME CHANNELS 9 (156.450 MHz), 11 (156.550 MHz), 12 (156.600 MHz), 14 (156.700 MHz), 68 (156.425 MHz), 69 (156.475 MHz), 71 (156.575 MHz) and 74 (156.725 MHz) FOR EACH 6.25 kHz CHANNEL

Column 1	Column 2
Area	Charge
<i>UK</i>	£2318.75
<i>Heavy congestion area</i>	£55
<i>Medium congestion area</i>	£21.25
<i>Light congestion area</i>	£11.25
<i>Non-congested area</i>	£0.00

## SCHEDULE 11

Schedule 2

CHARGES FOR THE COASTAL STATION RADIO (INTERNATIONAL) AREA  
DEFINED LICENCE CLASS FOR INTERNATIONAL MARITIME CHANNELS  
87 (157.375 MHz) AND 88 (157.425 MHz) FOR EACH 6.25 kHz CHANNEL

Column 1	Column 2
Size of Licensed Area	Charge
<i>1 – 4 grid squares</i>	£18.75
<i>5 – 8 grid squares</i>	£37.50
<i>9 – 12 grid squares</i>	£56.20
<i>13 – 16 grid squares</i>	£75
<i>17 – 20 grid squares</i>	£93.75
<i>21 – 24 grid squares</i>	£112.50
<i>More than 24 grid squares</i>	£125

## SCHEDULE 12

Schedule 2

CHARGES FOR THE COASTAL STATION RADIO (INTERNATIONAL) AREA  
DEFINED LICENCE CLASS FOR INTERNATIONAL MARITIME CHANNELS  
OTHER THAN 9 (156.450 MHz), 11 (156.550 MHz), 12 (156.600 MHz), 14 (156.700  
MHz), 68 (156.425 MHz), 69 (156.475 MHz), 71 (156.575 MHz), 74 (156.725 MHz),  
87 (157.375 MHz) AND 88 (157.425 MHz) FOR EACH 2 x 25 kHz CHANNEL

Column 1	Column 2
Size of Licensed Area	Charge
<i>1 – 4 grid squares</i>	£75
<i>5 – 8 grid squares</i>	£150
<i>9 – 12 grid squares</i>	£225
<i>13 – 16 grid squares</i>	£300
<i>17 – 20 grid squares</i>	£375
<i>21 – 24 grid squares</i>	£450
<i>More than 24 grid squares</i>	£500

## SCHEDULE 13

Schedule 2

## CHARGES FOR THE COASTAL STATION RADIO (UK) LICENCE CLASS FOR EACH 6.25 kHz CHANNEL

Column 1	Column 2	Column 3	Column 4
Area	Charge for Small Coverage Area	Charge for Medium Coverage Area	Charge for Large Coverage Area
<i>High population area</i>	£25	£67.50	£70
<i>Medium population area</i>	£21.25	£42.50	£62.50
<i>Low population area</i>	£18.75	£20.00	£22.50

## SCHEDULE 14

Schedule 2

## CHARGES FOR THE COASTAL STATION RADIO (UK) AREA DEFINED LICENCE CLASS FOR EACH 6.25 kHz CHANNEL

Column 1	Column 2
Area	Charge
<i>UK</i>	£2062.50
<i>High population area</i>	£247.50
<i>Medium population area</i>	£31.25
<i>Low population area</i>	£3.00

## Annex 7

# Glossary

<b>AIP</b>	Administered incentive pricing
<b>AIS</b>	Automatic Identification System
<b>CAA</b>	Civil Aviation Authority
<b>CB Radio</b>	Citizens' Band Radio
<b>CGC</b>	Complementary Ground Component
<b>DSO</b>	Digital Switchover
<b>EC</b>	European Commission
<b>EU</b>	European Union
<b>GHz</b>	Gigahertz
<b>MHz</b>	Megahertz
<b>MSS</b>	Mobile Satellite Service
<b>SRSP</b>	Strategic Review of Spectrum Pricing
<b>TVSAT</b>	Transportable Very Small Aperture Terminal
<b>VSAT</b>	Very Small Aperture Terminal
<b>WT Act</b>	Wireless Telegraphy Act 2006