



Notice of proposals to make
the Wireless Telegraphy (Licence
Charges) (Amendment)
Regulations 2012

Consultation

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Section 1

Executive summary

- 1.1 This document consults on draft regulations to make the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2012 (the 'Proposed Regulations'). The Proposed Regulations would amend the Wireless Telegraphy (Licence Charges) Regulations 2011 (the '2011 Regulations') that came into force on 3 May 2011.
- 1.2 The Proposed Regulations set out the changes that we propose to make to licence charges (fees) for some classes of wireless telegraphy licence other than those awarded by auction. In particular, the Proposed Regulations would implement changes that introduce 'Administered Incentive Pricing' ((AIP) whereby licence fees are set above administrative costs to reflect a range of spectrum management objectives), for certain aeronautical licence classes. In addition, they would also introduce the second phased increase for some maritime licence classes. These proposed changes have been subject to prior consultation, in line with Ofcom's consultation principles. Unless stated in this document, all other licence charges would remain unchanged from the 2011 Regulations.
- 1.3 In summary, the Proposed Regulations would make the following changes:
 - restructure Aeronautical Ground Station licence products and introduce AIP-based charges for most licence types;
 - extend the prescribed payment interval from 12 to 36 months for the Aircraft and the Aircraft (Transportable) licence classes;
 - reduce the level of fees payable for Analogue television broadcasting;
 - increase the level of fees payable for Coastal Station Radio (UK) and for Coastal Station Radio (International) licences, to implement the second phased increased for maritime licences as mentioned above; and
 - make some administrative amendments to the 2011 Regulations.
- 1.4 In accordance with the requirements of section 122(4) and (5) of the Wireless Telegraphy Act 2006 (the 'WT Act') this document gives notice of our intention to make the Proposed Regulations. Comments on the Proposed Regulations are invited by **5pm** on **27 February 2012**. Subject to consideration of responses we intend to bring the new Regulations into force in May 2012.
- 1.5 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 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 Before making any regulations we are required by section 122(4) of the WT Act to give notice of our proposal to do so. 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.
- 2.4 This document gives notice of our proposal to make the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2012 (the 'Proposed Regulations'). This document sets out the general effect of the Proposed Regulations in particular in section 6, but also in more detail in sections 3 to 5. A copy of the Proposed Regulations is in Appendix 6 of this document, and further copies may be obtained from www.ofcom.org.uk or from Ofcom at Riverside House, 2a Southwark Bridge Road, London SE1 9HA.
- 2.5 Unless stated in the following sections, all existing licence charges will remain the same. This consultation concerns 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

- 2.6 The document is structured as follows:
- Section 3 contains the proposals for the licence charges for aeronautical licence classes;
 - Section 4 outlines changes to other licence classes;
 - Section 5 provides information on a couple of administrative amendments;

- Section 6 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

2.7 Following the publication of this consultation document, stakeholders are invited to provide their feedback on the drafting of the regulations. Those who wish to do so have until 5pm on 27 February 2012 to make representations on our proposal. We expect to release a statement on this consultation by April 2012, having taken into account the stakeholder responses to our proposals and bring into force the regulations in May 2012.

Section 3

Aeronautical licence classes

3.1 The following section highlights our fee proposals for how we intend to implement a number of aeronautical licence products. These are the result of previous policy consultations undertaken by Ofcom. The licence classes that we are introducing, and for which the Proposed Regulations would set licence charges, are set out in this section. For administrative purposes our proposals will introduce new licence products that will replace the existing ones however, this is only a change in name and the terms and conditions of the licence will remain the same.

Introduction of AIP based fees for aeronautical licences

- 3.2 In July 2008 we published an exploratory consultation document (the ‘July 2008 consultation’)¹ which considered whether spectrum fees based on AIP principles should be applied to aeronautical (and maritime) spectrum.
- 3.3 A second consultation document was published in December 2009 (the ‘December 2009 consultation’)² and included detailed proposals for specific licence classes. Following the consultation, in December 2010 we published a statement (the ‘December 2010 statement’)³ in which we announced that we had decided to apply AIP-based fees to most types of aeronautical ground station services. The December 2010 statement set out the fee to apply to each class of licence and a timetable for phasing in fee changes gradually during the period to May 2016.
- 3.4 However, responding to stakeholder comment, we said we would consult further on whether the fees for some service types should reflect the coverage and the surrounding separation zone necessary to prevent interference. We noted that bespoke fees might provide greater incentives for licensees to minimise their service coverage, thereby freeing up spectrum potentially for other users. These “bespoke” fees would be in contrast to the “generic” fees set out in the December 2010 statement which would be common to all assignments of a particular type irrespective of service area.
- 3.5 In March 2011 we published a further consultation (the ‘March 2011 consultation’)⁴ that set out the proposed algorithms for determining fees on a bespoke rather than generic basis in some instances. The bespoke fees were based on the Designated Operational Coverage (DOC) of the aeronautical service and reflect the size of the total area sterilised (TSA) by the assignment.
- 3.6 In June 2011 we published a statement (the ‘June 2011 statement’)⁵ that confirmed we were to go ahead with the bespoke approach for some licence classes. The generic fees as set out in the December 2010 statement would apply to the remaining classes of licence which would not be subject to bespoke pricing.

¹ <http://stakeholders.ofcom.org.uk/binaries/consultations/aip/summary/fullpdf.pdf>

² http://stakeholders.ofcom.org.uk/binaries/consultations/spectrum_pricing/summary/aip2.pdf

³ http://stakeholders.ofcom.org.uk/binaries/consultations/spectrum_pricing/statement/statement.pdf

⁴ <http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/summary/condoc.pdf>

⁵ <http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/statement/statement.pdf>

3.7 In the following paragraphs, we explain the changes that we propose to make to the Wireless Telegraphy (Licence Charges) Regulations 2011 (the '2011 Regulations') in order to implement the changes to aeronautical licences as outlined in the December 2010 and June 2011 statements.

Charging basis for aeronautical licences

3.8 The licence charges for aeronautical services are based on three mechanisms, these are:

- 'Bespoke' AIP-based – an AIP-based licence fee proportionate to the extension of the area of airspace within which wireless telegraphy is authorised under the licence (the DOC) and the surrounding separation zone necessary to prevent interference (the TSA). The method for calculating the TSA varies according to the type of service which is authorised under the licence, this being either an Area, Broadcast or Circular service;
- 'Generic' AIP-based - this is a flat AIP-based fee that is not dependent on the extension of the TSA. Each licensee will pay the same rate for the spectrum assignment.
- Cost recovery – this is a flat fee based on the costs to Ofcom on managing the WT Act licence.

3.9 The paragraphs below describe in greater detail how each of the proposed new fees will be calculated. Please note that the examples used in the following paragraphs are for illustrative purposes only.

AIP-based bespoke fees and how they are calculated

3.10 As outlined in paragraphs 4.3 to 4.6 of the June 2011 statement, bespoke AIP-based fees will reflect the size of the TSA for an assignment and includes (a) the service area defined by the DOC and (b) the wider separation zone defined, predominantly, by the International Civil Aviation Organisation (ICAO) frequency planning rules as set out in ICAO EUR Doc 011-EUR⁶. The regulation of UK airspace is carried out by the Civil Aviation Authority (CAA).

3.11 A DOC can be one of three forms depending on the type of service that is regulated (as set out in the ICAO frequency planning rules). These are the types of service that may be authorised:

- Area Service: a two-way communication service between one or more ground stations and aircraft by means of wireless telegraphy which is authorised under the licence within a DOC with a polygonal horizontal extension, as specified in the licence granted to the licensee;
- Broadcast Service: a one-way communication service from one or more ground stations by means of wireless telegraphy which is authorised under the licence within a DOC with a circular horizontal extension, as specified in the licence granted to the licensee; and
- Circular Service:- a two-way communication service from one or more ground stations and aircraft by means of wireless telegraphy which is authorised under

⁶ http://www.paris.icao.int/documents_open/show_file.php?id=275

the licence within a DOC with a circular horizontal extension, as specified in the licence granted to the licensee.

- 3.12 The TSA is the total area in which the frequency cannot be reassigned (based to aeronautical operational rules) and so is denied to other users. The way in which the TSA is calculated for licence charge purposes for each category of service varies and was set out in paragraphs 2.36 to 2.54 of the March 2011 consultation. As a result of this, each category of service will have a separate fee calculation as described in the June 2011 statement.
- 3.13 For some licence classes for aeronautical stations only a specific type of service can be provided (e.g. a licence belonging to the “Aeronautical Station - Aeronautical Broadcast” licence would always be granted a Broadcast service). Other licence classes would give the option between a licence for an Area Service or a Circular Service, depending on the type of service requested by the licensee on application for the licence. In such cases, the method for calculating the payable fee would depend on the type of service (i.e. Area or Circular) specified in the licence granted to the licensee.
- 3.14 Licence charges for all three service categories are based on a **reference rate of £3,300 per 8.33 kHz channel**⁷. The reference rate applies to an area sterilised of 71,000 square nautical miles (this is approximately equal to the UK). Where the area sterilised is less than 71,000 square nautical miles, the fee will be reduced pro rata. For example, where the area sterilised is 7,100 square nautical miles, the fee for an 8.33 kHz assignment will be £330. However, where the sterilised area is greater than 71,000 square nautical miles, the fee will be capped at £3,300 per 8.33 kHz channel.
- 3.15 Once the licence charge for the TSA has been calculated, to minimise administrative complexity the fee is **rounded down to the nearest £50**. This was set out in paragraph 4.18 of the June 2011 statement.
- 3.16 All licences issued will be subject to a **minimum fee of £75**.
- 3.17 To assist stakeholders in understanding what their licence charge would be, a **fee calculator tool**⁸ was developed and was published along with the March 2011 consultation. In the following paragraphs, we explain the formulae that we have extracted from that fee calculator tool in relation to an Area, Broadcast and Circular service respectively. We propose to insert such formulae in the Proposed Regulations as part of the method for calculating the fees payable for the aeronautical licences for which we have decided to apply a bespoke AIP-fee.

Area service

- 3.18 An Area service authorises the use two-way communication service between one or more ground stations and aircraft by means of wireless telegraphy within a DOC with a polygonal horizontal extension. In order to calculate the TSA the polygon is converted into a circle of equivalent area. The area of the base circle is then used to calculate the TSA. Paragraphs 4.14 to 4.16 of the June 2011 statement outlined how the DOC and TSA are calculated for an Area service for licence fee purposes.

⁷ In the June 2011 statement the reference rate was £9,900 per 25 kHz channel. The change reflects the lowest available channel bandwidth for the service. This has no impact on the overall fee.

⁸ <http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/annexes/annex.xls>

3.19 To calculate the fee for an Area service, the following equation is used:

$$AS = RR \div SA \times \pi \times \left[(1.23 \times \sqrt{h}) + r \right]^2$$

where—

“AS” means the appropriate sum;

“h” means the number corresponding to the height (in feet) of the DOC, as specified in the licence granted to the licensee;

“RR” means the “Reference Rate”, being the fee payable for an authorisation under a licence of use of an 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles (nm)) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles (nm)) of a circle of equivalent area to the DOC, the area of the DOC being specified in the licence granted to the licensee;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

Example

3.20 A DOC with a bandwidth of 25 kHz, height of 6,000 ft and service area of 4,500 nm² the fee would be calculated as follows:

$$AS = (3,300 \times 3) \div 71,000 \times 3.142 \times \left[(1.23 \times \sqrt{6,000}) + r \right]^2$$

3.21 Please note that in order to calculate the *reference rate* applicable to this example, we need to multiple 3,300 by 3. This is because a bandwidth of 25kHz, as the one used in our example, corresponds to 3 times a bandwidth of 8.33kHz, which is the unit reference rate (RR) used in the formula.

3.22 In order to calculate the radius of the DOC, it should be considered that the area of a circle (4,500 nm² in our example) is equal to “Pi” (π = 3.142) multiplied by the square of the radius (i.e. 4,500 = 3.142 x r²).

3.23 Therefore, the radius of the DOC is equal to the square root of the ratio between the area of the DOC and 3.142:

$$r = \sqrt{4,500 / 3.142} = 38$$

3.24 If we insert the radius of the DOC (38 nm) in the formula above, we obtain the following formula:

$$AS = (3,300 \times 3) \div 71,000 \times 3.142 \times \left[(1.23 \times \sqrt{6,000}) + 38 \right]^2$$

$$AS = 9,900 \div 71,000 \times 3.142 \times \left[(1.23 \times 77) + 38 \right]^2$$

$$AS = 9,900 \div 71,000 \times 3.142 \times 17,612$$

$$AS = 7,716$$

- 3.25 Given that the output of the formula above is £7,716, the fee payable in our example would be **£7,700**, which is the amount in pounds sterling equal to the nearest lower multiple of 50.

Broadcast service

- 3.26 A Broadcast service authorises the use of one-way communication service from one or more ground stations by means of wireless telegraphy within a DOC with a circular horizontal extension. The calculation of the fee stems from the area of the base circle. Paragraphs 4.12 to 4.16 of the June 2011 statement outlined how the DOC and TSA are calculated for licence fee purposes.
- 3.27 To calculate the fee for a Broadcast service the following two equations are used and the fee charged is the lesser of the two:

$$\text{Calculation 1: } S = RR \div SA \times \pi \times \left[(1.23 \times \sqrt{h}) + r \right]^2 ; \text{ or}$$

$$\text{Calculation 2: } S = RR \div SA \times \pi \times (3 \times r)^2$$

where—

“S” means the sum;

“h” means the number corresponding to the height (in feet) of the DOC, as specified in the licence granted to the licensee;

“RR” means the “Reference Rate”, being the fee payable for an authorisation under a licence of use of an 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles (nm)) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles (nm)) of the DOC, which is specified in the licence granted to the licensee;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

Example

- 3.28 A DOC with a bandwidth of 25 kHz (to calculate the reference rate applicable to this example, we need to multiple 3,300 by 3), height of 4,000 ft and radius of 15 nm the fee would be calculated as follows:

Calculation 1

$$S = (3,300 \times 3) \div 71,000 \times 3.142 \times \left[(1.23 \times \sqrt{4,000}) + 15 \right]^2$$

$$S = 9,900 \div 71,000 \times 3.142 \times [(1.23 \times 63) + 15]^2$$

$$S = 9,900 \div 71,000 \times 3.142 \times 8,554$$

$$S = \text{£}3,747$$

Calculation 2

$$S = (3,300 \times 3) \div 71,000 \times 3.142 \times (3 \times 15)^2$$

$$S = 9,900 \div 71,000 \times 3.142 \times 2025$$

$$S = \text{£}887$$

- 3.29 The licence fee payable would be the lesser of the two calculations. In this case Calculation 2 is the lesser amount and the licensee would have to pay **£850** which is the amount in pounds sterling equal to the nearest lower multiple of 50.

Circular service

- 3.30 A Circular Service authorises two-way communication service from one or more ground stations and aircraft by means of wireless telegraphy within a DOC with a circular horizontal extension. The calculation of the fee stems from the area of the base circle. Paragraphs 4.7 to 4.11 of the June 2011 statement outlined how the DOC and TSA are calculated for licence fee purposes.

- 3.31 To calculate the fee for a Circular service the following equations are used. Licensees will be charged the output of either Calculation 1 (itself the lesser of 1a or 1b) or Calculation 2, whichever is the greater.

$$\text{Calculation 1a: } S = RR \div SA \times \pi \times \left[(1.23 \times \sqrt{h}) + r \right]^2 \text{ or}$$

$$\text{Calculation 1b: } S = RR \div SA \times \pi \times (3.5 \times r)^2$$

$$\text{Calculation 2: } S = \{ RR \div SA \times \pi \times \left[(1.23 \times \sqrt{h}) + r \right]^2 \} \div 4$$

where—

“S” means the sum;

“h” means the number corresponding to the height (in feet) of the DOC, as specified in the licence granted to the licensee;

“RR” means the “Reference Rate”, being the fee payable for an authorisation under a licence of use of an 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles (nm)) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles (nm)) of a circle of equivalent area to the DOC, the area of the DOC being specified in the licence granted to the licensee;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

Example

- 3.32 A DOC with a bandwidth of 25 kHz (reference rate is 3 x 3,300), radius of 15 nm and height of 4,000 ft the fee would be calculated as follows:

Calculation 1a

$$S = (3,300 \times 3) \div 71,000 \times 3.142 \times \left[\left(1.23 \times \sqrt{4,000} \right) + 15 \right]^2$$

$$S = 9,900 \div 71,000 \times 3.142 \times \left[(1.23 \times 63) + 15 \right]^2$$

$$S = 9,900 \div 71,000 \times 3.142 \times 8,554$$

$$S = \text{£}3,747$$

Calculation 1b

$$S = (3,300 \times 3) \div 71,000 \times 3.142 \times (3.5 \times 15)^2$$

$$S = 9,900 \div 71,000 \times 3.142 \times 2756$$

$$S = \text{£}1207$$

- 3.33 Therefore the fee for the first part of the test would be £1,207. This is then compared against calculation 2 to see which amount is the greatest.

Calculation 2

$$S = (3,300 \times 3) \div 71,000 \times 3.142 \left\{ \left[\left(1.23 \times \sqrt{4,000} \right) + 15 \right]^2 \right\} \div 4$$

$$S = 9,900 \div 71,000 \times 3.142 \times \left\{ \left[(1.23 \times 63) + 15 \right]^2 \right\} \div 4$$

$$S = 9,900 \div 71,000 \times 3.142 \times 8,554 \div 4$$

$$S = \text{£}937$$

- 3.34 Based on the calculations the licensee would pay **£1,200** (calculation rounded down to the nearest £50) as the outcome of Calculation 1(b) is greater than Calculation 2.

Five year phased introduction of bespoke licence charges

- 3.35 As set out in paragraph 4.19 of the June 2011 statement the full AIP-rate for these services will be phased in over a period of five years. Therefore, the AIP fees for aeronautical licences will be subject to a maximum cap specific to each licence class. This cap will progressively increase until 2016 as set out in the table below. To implement the revised caps we will amend the 2011 Regulations each year. Table 1 sets out the maximum fee level for each licence class where a limit applies.

Table 1: Maximum level of bespoke fees per 8.33 kHz channel during the period when fee increases are being phased in.

Licence class	2012/13	2013/14	2014/15	2015/16	2016 +
Aeronautical Station - Air/Ground, AFIS & Tower	£116.66	£166.66	£400	£633.33	£3,300
Aeronautical Station - Approach	£333.33	£666.66	£1,000	£2,000	£3,300
Aeronautical Station - Aeronautical Broadcast	£333.33	£666.66	£1,000	£2,000	£3,300
Aeronautical Station - ACARS	£333.33	£666.66	£1,000	£2,000	£3,300
Aeronautical Station - VDL	£333.33	£666.66	£1,000	£2,000	£3,300

Generic AIP-based licence fees

3.36 As reconfirmed in paragraph 4.20 of the June 2011 statement licences belonging to the licence classes set out in Table 2 would attract a generic AIP-based charge.

Table 2: Generic AIP-based fees for a 12 month period

New licence class	Old fee	New fee
Aeronautical Station - Aerodrome Surface and OPC	£250 per 25 kHz (i.e. £83.3 per 8.33 kHz channel)	£116.66 per 8.33 kHz channel for 12 months
Aeronautical Station - Offshore	£250 per 25 kHz for 12 months	£116.66 per 8.33 kHz channel with an additional charge of £75 per assigned mobile channel for 12 months
Aeronautical Station - Recreational Aviation	£25 for 12 months	£75 per block of frequencies for 12 months

Other licence changes

Frequencies attracting no fee

3.37 The frequencies 121.5 MHz, 123.1 MHz and 121.6 MHz will not attract a fee when they are assigned to a licence. This was stated in paragraph 3.42 of the December 2010 statement.

3.38 As a result of this proposal the Aeronautical Ground Station (Fire) licence will no longer attract a £25 fee. As no charge will apply we will be removing the licence class from the 2011 Regulations. However, the CAA will continue to issue individual licences belonging to this licence class.

Aircraft and Aircraft (Transportable)

3.39 The June 2011 Statement outlined that the payment interval was to change from 12 to 36 month but the fee would remain the same. This in effect is a two-thirds decrease in fees for licensees. However, in order to continue to permit short term aircraft licences we will also need to make a change to the 2011 Regulations.

3.40 Under Regulation 4, short term licences can only be granted for licences where the sum payable is £75 or more per annum. By extending the Aircraft licences to 36 months under the current regulations we would not be able to issue short term a licence without creating a new licence product. To resolve this issue we propose to

amend regulation 4(3) to permit the issue of an Aircraft licence for a period of less than thirty-six months, subject to a minimum £20 fee.

Aeronautical Ground Station (High Frequency)

3.41 Although we have not proposed any changes to the licence charges for this licence class we are proposing to rename it. We propose to change the licence name to Aeronautical Station (High Frequency). This minor modification is to bring the description into line with the new licence classes that we are proposing to introduce in this document.

Implementation of changes to licence classes

3.42 The Proposed Regulations coming into force does not in itself change current licensing arrangements. These will only apply once the new licence classes are made available for new applications and existing assignments are migrated from the old licences to the new. The Proposed Regulations only provide the legal basis necessary to enable the new licence types to be issued. However, this doesn't, of itself, affect existing licences. The new regime will only come into effect when we:

- start issuing the new licences for new applications; and
- formally vary (a process taking a number of months to transfer existing licences to the new licence types) existing licence types to the new liberalised licence classes.

3.43 As confirmed in paragraph 3.80 of the June 2011 Statement, we are to change most the existing aeronautical licence classes to the new products. Table 3 shows how current licences classes will migrate to the new set of products. For information we have included the ICAO service that the licence class relates to and the charging method that is to be introduced. It should be noted that the changes that we are proposing will not impose any new restrictions on current licence terms.

Table 3: migration of aeronautical licence products

ICAO service	Old licence name	New licence name	Fee basis	
Bespoke AIP-based licence classes				
Aerodrome control service (TWR)	AGS - Air Traffic Control/ Ground Movement Control	Aeronautical Station - Air/Ground, AFIS & Tower	<i>Circular Area</i>	
Aerodrome flight information service (AFIS)	AGS (Air to Ground and Flight Information Service)			
Air / Ground (A/G)				
Precision approach radar (PAR)	AGS - Air Traffic Control/ Ground Movement Control	Aeronautical Station - Approach	<i>Circular Area</i>	
Approach control service (APP)				
Automatic terminal information service (ATIS)		Aeronautical Station - Aeronautical Broadcast	<i>Broadcast</i>	
Meteorological broadcast for aircraft in flight (VOLMET)				
Flight information service (FIS)		Aeronautical Station - Area Control	<i>Circular Area</i>	
Area control service (ACC)				
VHF Data link (VDL)		AGS Operational Control	Aeronautical Station - VDL	<i>Area</i>
Aircraft Communications Addressing and Reporting System (ACARS)			Aeronautical Station - ACARS	<i>Area</i>
Generic AIP-based licence classes				
Aerodrome surface communications (AS)	AGS - Air Traffic Control/ Ground Movement Control	Aeronautical Station - Aerodrome Surface and OPC	Generic	
Operational control (OPC)	AGS Operational Control			
Departure Automatic terminal information service (DATIS)	AGS - Air Traffic Control/ Ground Movement Control			
Ground Movement Control (GMC)				
N/A	AGS - Offshore Platform	Aeronautical Station - Offshore	Generic	
N/A	AGS - General aviation	Aeronautical Station - Recreational Aviation ⁹	Generic	
Other licence classes				
N/A	AGS - High Frequency	Aeronautical Station - High Frequency	Cost recovery	

⁹ Includes all shared frequencies used for gliding, parachuting, hand gliding and microlight flying

- 3.44 In order to migrate licensees to the new products we must follow a formal process of licence variation as set out in Schedule 1 of the WT Act. This process can be summarised as follows. We are required to:
- 3.44.1 give notice in writing to individual licensees setting out what is changing for them and the reasons for this;
 - 3.44.2 allow licensees a minimum of one month to make any representations to Ofcom in respect of the notification;
 - 3.44.3 take no more than one month to consider any such representations and to determine whether to proceed with the variation;
 - 3.44.4 notify licensees within one week of our determination, of the decision to proceed or otherwise with the Variation proposal. This notification will include details of the specific date when the change will happen; and
 - 3.44.5 issue new licences to all licensees once the variation process is complete.
- 3.45 The proposed variations will include a change to the licence name, including, where appropriate, the specification of whether the individual licence is for an Area, Broadcast or a Circular service, as well as further specifications concerning the volume of airspace within which the provision of a specific service by means of wireless telegraphy is authorised under the licence (the “designated operational coverage” or “DOC”), such as the radius or area of the DOC.
- 3.46 The licence variation process is linked to the introduction of the necessary changes to our licensing system that will support the new licensing structure. The variation process can begin before system is in place, but cannot complete until the new system is up and running. The aim is to have this in place when the regulations enter force in May 2012. In changing our current system we need to ensure that it is fully ready for operational use. Consequently it may be necessary to change the date that we switchover to the new products and this will impact on the timing of the licence variation process.
- 3.47 Once all existing licences are varied there will be no licences of the current types on issue and we will tidy up the Regulations to remove reference to the existing licence classes.

Section 4

Changes to other licence products

4.1 The following section outlines our proposals to change the 2011 Regulations in relation to fees charged for the following licence products, these are:

- Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts); and
- Maritime - Coastal Station Radio (UK) and Coastal Station Radio (International).

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

4.2 Since October 2007, the UK has begun to migrate from analogue to digital broadcasting of television services 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.

4.3 Following the conclusion of DSO, we will no longer need to devote any time or resources to planning or protecting UK analogue television 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 2012 are to be formalised in the Proposed Regulations as illustrated in Table 4.

Table 4 – 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)
2012	44,944	52,791

Maritime sector licence changes

4.4 In August 2009 Ofcom published a consultation document entitled “Applying spectrum pricing to the maritime sector, and new arrangements for the management of spectrum used for radar and aeronautical navigation aids” (the ‘2009 Maritime consultation’)¹⁰. The 2009 Maritime consultation laid out detailed proposals in respect of licence charges for 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 Maritime consultation our reasons for proposing changes to the charges for certain maritime VHF communications channels. In sections 6 and 7 of the 2009 Maritime consultation we set out our assessment and proposed conclusions about the different ways to set charges. In the subsequent statement

¹⁰ http://stakeholders.ofcom.org.uk/binaries/consultations/aip_maritime/summary/aipcondoc.pdf

published on 15 June 2010 (the 'Maritime statement')¹¹ we decided to proceed with the proposals. The 2011 Regulations implemented this decision.

- 4.5 In the Maritime statement we advised that we were to phase in the full AIP rate for Coastal Station Radio (UK) and Coastal Station Radio (International) licences over three years. The proposals set out below implement the second instalment of the fee change.

Coastal Station Radio (UK)

- 4.6 Paragraphs 4.21 to 4.25 of the Maritime statement set out the new charging regime for technically assigned Coast Station Radio (UK) licences. As set out in Figure 4 of the Maritime statement, the Proposed Regulations will implement the second phased change of AIP-based charges. Table 5 demonstrates the licence charges after the Proposed Regulations would have come into force.

Table 5: 2012 Coastal Station Radio (UK) licence charges for a 6.25 kHz channel

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	£127.50	£92.50	£25
Medium population	£62.50	£42.50	£21.25
Low population	£22.50	£20	£18.75

Coastal Station Radio (International)

- 4.7 Paragraphs 4.13 to 4.20 of the Maritime statement set out the new charging regime for technically assigned Coast Station Radio (International) licences. As set out in Figure 2 of the Maritime statement the licence fees for Heavy Congestion areas were to increase over three years for each 6.25 kHz channel. The Proposed Regulations will introduce the second phase of these fee changes. Table 6 below demonstrates the effect this will have on the standard fee rate for Large, Medium and Small coverage areas in a high congestion area. The subsequent increases for 2013 will be implemented in future regulations.

¹¹ http://stakeholders.ofcom.org.uk/binaries/consultations/aip_maritime/statement/statement.pdf

Table 6: 2012 fees for 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	£87.50	£75	£75
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

Section 5

Administrative amendments to 2011 Regulations

5.1 In addition to the changes to specific licence classes described in the previous sections, we are also proposing to make some minor changes that will affect some licence classes. These changes are administrative and will not modify the licence conditions for any licence class.

Administrative amendment

5.2 As outlined in paragraph 3.40 we are to make a change to regulation 4(3) of the 2011 Regulations to permit the issue of short term Aircraft licences. As a result of this change we would also need to amend regulation 4(4). We propose to substitute the current reference to “one year” to “prescribed payment interval” and the reference to payments representing “one-twelfth” to “corresponding to one month of the prescribed payment interval”.

Correction to the regulations

5.3 The Proposed Regulations would also correct some errors in the 2011 Regulations, these relate to:

- Business Radio (Area Defined);
- Coastal Station Radio (UK); and
- Transportable Earth Stations.

Business Radio (Area Defined) and Coastal Station Radio (UK)

5.4 The fee for Business Radio (Area Defined) and Coastal Station Radio (UK) licences are partly based on the population density of their coverage areas. Schedule 5 of the 2011 Regulations lists the grid squares for high, medium and low population areas used in the licence fee calculation model. It has come to our attention that there was a drafting error relating to one of the grid squares. Grid square TL 500 500 was listed as a medium coverage area in error, the correct reference should have been TL 000 5000. We are to address this by replacing the grid square TL 500 500 with TL 000 500 in the list of medium population areas.

Transportable Earth Stations

5.5 In Schedule 4, Part 3, of the 2011 Regulations. In Column 4 of the table there is an error in the frequency band. The frequency listing of “29.4625 – 29.4630 GHz” in the heading of that column of the table should be replaced with “29.4625 – 30 GHz”.

Section 6

General effect of the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2012

The legislative framework

- 6.1 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.
- 6.2 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. Some of the charges in the Proposed Regulations would be set on the basis of administrative costs, others on the basis of AIP.
- 6.3 The 2011 Regulations will be amended by the Proposed Regulations.
- 6.4 A draft of the Proposed Regulations is included in Annex 6 of this document.

Extent of application

- 6.5 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

- 6.6 Regulation 3 inserts the definition of DOC including the associated services and outlines that the emergency channels (121.5 MHz, 121.6 MHz and 123.1 MHz) are excluded from the regulations.
- 6.7 Regulation 4 amends the 2011 Regulations to permit the continued issuing of short term Aircraft licences.
- 6.8 Regulation 5(2) amends Schedule 2 of the 2011 Regulations. It inserts the list of new aeronautical licence classes as outlined in section 3 of this document. Also included is the licence charging basis and where appropriate reference to the relevant part of Schedule 15.
- 6.9 Regulation 5(3) updates the charges relating to BBC and ITN Broadcasting Services.
- 6.10 Regulation 6 corrects an editorial error in Schedule 4 relating to the frequency bands for Transportable Earth Station licences.
- 6.11 Regulation 7 amends Schedule 5 in order to correct an error relating to a population density grid square.

- 6.12 Regulations 8 and 9 introduce the second phase increase in fees for Coastal Station Radio (UK) and (International) licence classes.
- 6.13 Regulation 10 inserts a new schedule containing the charging mechanism for some Aeronautical stations as referenced by regulation 5(2) based on whether the service authorised is Area, Broadcast or Circular.

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 27 February 2012**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://stakeholders.ofcom.org.uk/consultations/licence-charges-2012/>, 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 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, 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

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 . 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 Graham Howell, Secretary to the Corporation, who is Ofcom's consultation champion:

Graham Howell
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA
Tel: 020 7981 3601

Email Graham.Howell@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.
- 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/.
- 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 Section 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) (Amendment) Regulations 2012.

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

Regulatory 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 draft Wireless Telegraphy (Licence charges) (Amendment) Regulations 2012 (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.
- A5.4 This impact assessment relates to our proposal to update the regulations that prescribe charges for wireless telegraphy licences. We are proposing new regulations – the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2012 (the 'Proposed Regulations') – that would amend the current legislation: The Wireless Telegraphy (Licence Charges) Regulations 2011 (SI 2011/1128) (the '2011 Regulations'). The Proposed Regulations would maintain a number of the charges prescribed by the 2011 Regulations, but would also create charges for new licence classes and change some existing charges, some on the basis of AIP.

The citizen and/or consumer interest

- A5.5 Our principal duty under section 3 of the 2003 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.

A5.6 We believe that the proposals will be of benefit to consumers as the continued use of Administered Incentive Pricing (AIP), in the circumstances where we have decided to apply AIP, will encourage more efficient use of the radio spectrum. This will enable consumers to continue to benefit from advances in technology and the new services they may offer.

Ofcom's policy objective

A5.7 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.

A5.8 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 (this is termed AIP), to reflect a range of spectrum management objectives. In particular, in order to provide incentives for licensees to use their spectrum more efficiently. This goes to discharging our duties under section 3 of the WT Act.

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 and would have been considered when the policy proposals was undertaken:

- 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.

A5.10 However, having made the relevant policy decisions in other documents referred to (most notably, the Aeronautical AIP consultation documents and statements), the principal options open to us in connection with the Proposed Regulations are:

- i) to make regulations (the Proposed Regulations) that introduce new fees for certain licences classes and change others; or
- ii) to do nothing (not making the Proposed Regulations and maintaining the fees in the 2011 Regulations).

Analysis of options

A5.11 The following assesses the impact of options open to Ofcom by reference to the principal changes that would be made by the Proposed Regulations.

Make new regulations

Aeronautical licence classes

A5.12 A full analysis of the options for the proposed fees for aeronautical services, and their impact, was set out in our documents “Applying spectrum pricing to the Aeronautical sector, a second consultation”¹² (the ‘December 2009 consultation’) published December 2009, “Fees for aeronautical radio licences, a statement”¹³ published December 2010 (the ‘December 2010 statement’), “Bespoke licence fees for aeronautical VHF communications frequencies, a further consultation”¹⁴ published on March 2011 (the ‘March 2011 consultation’) and “Bespoke licence fees for aeronautical VHF communications frequencies, a statement”¹⁵ (the ‘June 2011 Statement’).

The benefits of AIP based fees for certain aeronautical licence classes.

- A5.13 Where the supply of spectrum is sufficient to meet demand, without recourse to prescriptive command and control of assignments, there is little to be gained in efficiency terms from setting fees other than to recover some or all of our relevant administrative costs. However, where there is excess demand for spectrum, we believe the cost to others and to the wider UK economy should be recognised by the current users so that they can make appropriate decisions. AIP based licence fees are intended to achieve this outcome.
- A5.14 There is excess demand for these frequencies from within the aeronautical sector and it is often very difficult to meet new requests for aeronautical VHF frequencies required by aerodromes and air traffic controllers. Europe is reviewing a number of measures to alleviate VHF congestion, including an extension of the use of narrower 8.33 kHz channels at additional flight levels. However, in our view it is too early to conclude that these measures will result in additional capacity such that use of aeronautical frequencies no longer has an associated opportunity cost.
- A5.15 We recognise that there are operational and regulatory constraints on the ability of spectrum users to respond to fees by using spectrum more efficiently in the short term. However, we consider that do have scope to respond in the long term, even if a change of spectrum use necessitates significant changes to the way operations are conducted or changes to the services provided in some cases.
- A5.16 There is also potential excess demand from other sectors of the economy which face shortages of spectrum which could be overcome if spectrum currently used by the aeronautical sector was made available to them. We recognise that it is not feasible to use aeronautical VHF communications frequencies for other applications today as this is likely to cause unacceptable interference with the current applications, in contravention of the UK’s obligations under international treaties. Whether this situation might change in future, and in what timeframe, is unclear. In determining the appropriate level of fees, therefore, no account has been taken of potential use of these frequencies by other sectors of the UK economy.

¹² http://stakeholders.ofcom.org.uk/binaries/consultations/spectrum_pricing/summary/aip2.pdf

¹³ http://stakeholders.ofcom.org.uk/binaries/consultations/spectrum_pricing/statement/statement.pdf

¹⁴ <http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/summary/condoc.pdf>

¹⁵ <http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/statement/statement.pdf>

- A5.17 In conclusion, we consider that licence fees based on opportunity costs will help manage excess demand for these frequencies, and promote efficiency improvements where possible, making it more likely that those who provide spectrum dependent services which are highly valued by UK citizens and consumers will have access to the frequencies which they need to deliver those services. We conclude that this will generate net benefits for UK citizens and consumers.
- A5.18 Where frequencies are used on a “commons” basis, often for safety of life purposes, Ofcom has decided to apply zero rated fees (e.g. SafetyCom, international distress and Fire frequencies).
- A5.19 We intend to phase-in fee increases to mitigate the transitional financial impacts that specific licensees may experience. This should reduce risks of inefficient responses to the new fees, including from smaller organisations which may be proportionately affected. A phased introduction of fees will enable us to identify the impacts of incremental changes for particular operators prior to full fees applying. By gradually introducing fees over time, this will ensure that Ofcom can respond quickly, as and when appropriate, during this period.
- A5.20 Our analysis explicitly recognised the critical importance of safety in the aeronautical sector and the relevant duties of the Civil Aviation Authority (CAA) as safety regulator. Where services which are provided using spectrum support the provision of public goods, the appropriate policy interventions to maximise such social value, or minimise social disbenefits, take the form of targeted subsidies and taxes for the outputs concerned, or direct regulation, rather than subsidies for the required inputs (including spectrum). The CAA has confirmed that it has adequate powers to respond to any safety concerns arising from Ofcom’s proposals to apply AIP to the aeronautical sector, and that the adequacy of VHF communications provision will be subject to safety regulation by the CAA using appropriate regulatory instruments taking into account safety justification provided by the service providers via, for example, safety cases.

The incremental benefits of bespoke pricing compared with generic pricing

- A5.21 The objective of applying bespoke pricing, instead of generic pricing, to some types of aeronautical radio licences, is to provide more effective incentives for licensees to use spectrum efficiently. The more closely charges reflect opportunity costs, the larger the gains from more efficient usage are likely to be. Generic fees will cause spectrum users to review the volume of each assignment type that they require, potentially releasing frequencies for other aeronautical users who place a higher value on that resource. However bespoke fees which vary according to the geographic impact of different assignments can provide additional incentives for licensees to consider using the minimum Designated Operational Coverage (DOC) consistent with their operational and regulatory requirements, thereby potentially releasing spectrum for other aeronautical users, and making it easier over time for the CAA to accommodate current and future demand for assignments.
- A5.22 Bespoke pricing may also have the advantage over generic pricing in so far as it may help to ensure that some users may decide to continue using spectrum which, otherwise, at generic prices, they would have given up, rationally (in response to the price set) but inefficiently (in relation to the value they derive from the use).
- A5.23 We recognise that bespoke pricing may be more complex and costly to administer than generic pricing. We forecast that most of the additional costs will take the form

of one-off up-front costs incurred in implementing the IS system needed to calculate bespoke fees. We estimate that the ongoing costs of generic and bespoke pricing will be similar as licence records would need to be maintained and invoices generated under either arrangement.

- A5.24 In the light of this analysis, we concluded that the cost of implementing and operating bespoke pricing for some licence classes is outweighed by the benefits in terms of more efficient use of scarce frequencies.

Impacts on different types of stakeholders

- A5.25 As set out in the December 2010 and June 2011 statements, we took care to review the distribution of financial impacts of the fee changes on different types of licensees. The impact of imposing AIP based licence fees for VHF on aviation users will fall on a wide variety of users. The impact on the industry as a whole will be an increase of about £3.5m per year at the end of the five years during which increases will be phased in. (The precise amount will depend on how licensees respond to pricing signals).
- A5.26 The largest individual financial impact falls on NATS En-Route plc (NERL) the regulated UK air navigation service provider. The total extra costs amount to 0.24% of NERL's regulated cost base. We understand that, although there may be intervening cash consequences, these costs are likely to be passed through to airlines under the next regulatory price review.
- A5.27 At the large airports where charges are regulated by the CAA, AIP charges are also unlikely to be able to be passed through in the short term so the airports affected will experience a cash impact in the relevant intervening periods before costs are potentially passed onto airlines. However, particularly in the light of our phasing proposals, such cash impacts are likely to amount to only a fraction of a penny per passenger movement. The larger commercial competitive airports will also face AIP charges amounting to a relatively small proportion of their aeronautical revenue which (because the proposed licence fees are industry-wide) are likely to be passed on to users. Charges amount to no more than a few pence per passenger movement at such airports.
- A5.28 The impact on smaller airports becomes proportionately larger, although at typically around 6p per passenger, in the more extreme cases, these impacts are small both in absolute terms and relative to overall costs in the aviation value chain. Furthermore, phasing will mitigate significantly any specific transitional issues.
- A5.29 Other impacts fall on a wide range of different types of licensee including airlines, aeronautical clubs, flying schools, private individuals, oil companies operating offshore installations, and research establishments. In our analysis of impacts we assumed that the great majority of licensees holding Air/Ground and Aerodrome Flight Information Service assignments which would attract a bespoke fee of £3350 will opt to reduce their DOC and reduce the fee to £650. We confirm that if, in practice, a substantial proportion of these licensees are unable to reduce their fees liability in this way, we will consult on implementing additional transitional arrangements before bespoke fees would otherwise exceed the equivalent generic fee of £2600 set out in the December 2010 statement but superseded by the bespoke fees algorithm set out in the June 2011 statement. We will consult with stakeholders if less than half of these assignments have had their DOC reduced in this way by May 2015.

- A5.30 Small aerodromes will typically see annual cost increases of 20p/movement or less (assuming a fee of £2600 payable for a DOC greater than 10nm radius and 3000ft service height). We note that per movement charges for sampled non-reporting aerodromes are low when compared to the cost of renting a small single engine craft (i.e. £80-£130 per hour before additional fees including fuel, landing fees, and parking). Furthermore, the same charges are very low when compared against the variable per hour operating cost of a business jet (e.g. between £526 and £5,482 total cost per hour). We also note that many small aerodromes may choose to operate with a more localised DOC which will attract an annual fee of £650 instead of £2600.
- A5.31 We are proposing to phase-in fee increases to mitigate the transitional financial impacts that specific licensees may experience. We have concluded that we should implement a phasing scheme where fee increases are relatively small in the early years and proportionately greater in the later years. We have concluded that this is appropriate because it will be in the early years that uncertainty about scope to respond in a manner consistent with safe and efficient operation will be greatest. Our proposals are intended to reduce the risk of inefficient responses to the new fees, including from the smaller organisations which are proportionately more affected. We consider our proposals will enable us to identify the impacts of incremental changes for these operators prior to full fees applying. By gradually introducing fees, we will ensure that Ofcom can respond quickly, as and when appropriate, during this period.

Aircraft and Aircraft (Transportable)

- A5.32 The extension of the licence period from 12 to 36 months, whilst maintaining the same licence charge, would lead to a reduction in costs to 12,000 licensees of two-thirds. This is an approximate saving for the sector per annum of £417,036.

Aeronautical ground station (Fire)

- A5.33 The decision to remove fees for emergency frequencies (121.5 MHz, 121.6 MHz and 123.1 MHz) would remove the £25 licence charge for 567 licensees. This represents an annual saving of £14,175 for the sector.

Broadcasting

- A5.34 The holders of the two Broadcasting (Transmission of National and Regional Analogue Television Broadcast), the BBC and ITN, would see their fees reduced from £283,708 to £44,944 for BBC and £333,243 to £52,791 for ITN. This represents an 85 percent decrease in licence charges.

Maritime licence classes

- A5.35 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 2010¹⁶.
- A5.36 The assessment was that:

¹⁶ http://stakeholders.ofcom.org.uk/binaries/consultations/aip_maritime/statement/statement.pdf

- 5.36.1 We consider our proposals will benefit citizens and consumers by helping to manage excess demand, potentially leading to release of spectrum for other users.
- 5.36.2 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”.
- 5.36.3 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).
- 5.36.4 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.
- 5.36.5 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.

Cost to Ofcom

- A5.37 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.

Do nothing

- A5.38 The main alternative amongst the specific options open to us would be to do nothing. By doing nothing, we mean not making the Proposed Regulations and maintaining the fees in the 2011 Regulations for all relevant licence classes. This would mean that we would not be implementing policy changes that Ofcom had previously consulted and decided upon and in relation to which we had published statements.

Aeronautical licence classes

- A5.39 If we did not adopt new fees regulations, the sector would not be subject to an overall increase of around £3.5m in licence charges (based on the full rate of AIP applicable after 5 years). A significant proportion of the proposed increase would fall on NATS En-Route plc (NERL), the regulated UK air navigation service provider. This additional cost would likely to be passed onto airlines under the next regulatory price review.
- A5.40 There is excess demand from within the aeronautical sector. It is often very difficult to meet new requests for aeronautical VHF communications frequencies required by aerodromes and air traffic controllers. Failure to implement the Proposed Regulations would mean that the issue of spectrum scarcity continues to not be addressed.
- A5.41 The decision Ofcom had made to adopt AIP for certain classes of Aeronautical licence was consistent with Ofcom's duties under sections 3 of the 2003 and WT Acts. Not giving effect to that decision by adopting the Proposed Regulations risks continued inefficient use of spectrum that would be inconsistent of our duties set out in sections 3 of those Acts.

Aircraft and Aircraft (Transportable)

- A5.42 Licensees would not benefit from a two-thirds reduction in their licence fee.

Aeronautical ground station (Fire)

- A5.43 Licensees would not benefit from a 100 percent reduction in their licence fee.

Broadcasting

- A5.44 Licensees would not benefit from an overall reduction in licence charges of £519,216 to take into account the switchover from analogue to digital television.

Maritime

- A5.45 If we do not make the Proposed Regulations, the 25% of Maritime licensees who are likely to incur increased fees would not be affected by an increase in fees.
- A5.46 The decision Ofcom had made to adopt AIP for certain classes of Maritime licence was consistent with Ofcom's duties under sections 3 of the 2003 and WT Acts. Not giving effect to that decision by making the Proposed Regulations would risk continued inefficient use of spectrum that would be inconsistent of our duties set out in sections 3 of those Acts.

Preferred option

- A5.47 Our preferred option is to implement the Proposed Regulations in order to continue to meet our spectrum management duties. 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.

Equality Impact Assessment

- A5.48 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 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.
- A5.49 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.
- A5.50 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.

Proposed Regulations

DRAFT STATUTORY INSTRUMENTS

2012 No. 0000

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2012

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^(a) (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, commencement and interpretation

1.—(1) These Regulations may be cited as the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2012 and shall come into force on ***.

(2) In these Regulations “the principal Regulations” means the Wireless Telegraphy (Licence Charges) Regulations 2011^(b).

Amendment of the Wireless Telegraphy (Licence Charges) Regulations 2011

2. The principal Regulations shall be amended in accordance with the following provisions of these Regulations.

Amendment of Regulation 2

3. In Regulation 2, after paragraph (6), insert the following paragraph—

“(7) In relation to an Aeronautical Station (Aerodrome Surface and Operational Control) licence, an Aeronautical Station (Aeronautical Broadcast) licence, an Aeronautical Station (Aircraft Communications Addressing and Reporting System) licence, an Aeronautical Station (Air/Ground, Aerodrome Flight Information Service and Tower) licence, an Aeronautical Station (Approach) licence, an Aeronautical Station (Area Control) licence, an Aeronautical Station (Offshore) licence,

(a) 2006 c. 36.

(b) S.I. 2011/1128.

an Aeronautical Station (Recreational Aviation) licence and an Aeronautical Station (Very High Frequency Data Link) licence—

- (a) “area service” means a two-way communication service between one or more ground stations and an aircraft by means of wireless telegraphy which is authorised under the licence within a designated operational coverage with a polygonal horizontal extension, as specified in the licence granted to the licensee;
- (b) “broadcast service” means a one-way communication service from one or more ground stations by means of wireless telegraphy which is authorised under the licence within a designated operational coverage with a circular horizontal extension, as specified in the licence granted to the licensee;
- (c) “circular service” means a two-way communication service from one or more ground stations and an aircraft by means of wireless telegraphy which is authorised under the licence within a designated operational coverage with a circular horizontal extension, as specified in the licence granted to the licensee;
- (d) “designated operational coverage” means the volume of airspace within which the provision of a specific service by means of wireless telegraphy is authorised under the licence, as specified in the licence granted to the licensee;
- (b) “excluded channels” means channels 121.5 MHz, 121.6 MHz and 123.1 MHz.”

Amendment of Regulation 4

4.—(1) Regulation 4 shall be amended in accordance with the following paragraphs of this regulation.

(2) Substitute paragraph (3) with the following paragraph—

“(3) Paragraph (4) shall apply also to—

- (a) a licence within the Point to Point Fixed Links licence class (which is listed under the heading “Fixed Links” in Schedule 2) where the sum otherwise payable for such licence is less than £75 per annum; and
- (b) a licence within the Aircraft licence class (which is listed under the heading “Aeronautical” in Schedule 2) where the sum otherwise payable for such licence is £75 or more per the prescribed payment interval.”

(3) In paragraph (4), substitute—

- (a) “for a period of less than one year” with “for a period of less than the prescribed payment interval”; and
- (b) “one-twelfth of the prescribed sum” with “a proportion of the prescribed sum corresponding to one month of the prescribed payment interval”.

Amendment of Schedule 2

5.—(1) Schedule 2 shall be amended in accordance with the following paragraphs of this regulation.

(2) Under the heading “**Aeronautical**”—

- (a) after the licence class “Aeronautical Ground Station (Offshore Platform)”, insert the following entries—

Aeronautical Station (Aerodrome Surface and Operational Control)		£116.66 for each authorisation under a licence of use of a 8.33kHz channel for a base station. Excluded channels shall not be taken into account.	12 months
Aeronautical Station (Aeronautical Broadcast)		For each authorisation under a licence of use of a 8.33kHz channel for a base station, the	12 months

		<p>appropriate sum payable is that determined in accordance with Part 2 of Schedule 15. Where the sum payable exceeds £333.33, then the sum payable is £333.33. Where the total sum payable in respect of a licence is less than £75, then the sum payable is £75. Excluded channels shall not be taken into account.</p>	
Aeronautical Station (Aircraft Communications Addressing and Reporting System)		<p>For each authorisation under a licence of use of a 8.33kHz channel for a base station, the appropriate sum payable is that determined in accordance with Part 1 of Schedule 15. Where the sum payable exceeds £333.33, then the sum payable is £333.33. Where the total sum payable in respect of a licence is less than £75, then the sum payable is £75. Excluded channels shall not be taken into account.</p>	12 months
Aeronautical Station (Air/Ground, Aerodrome Flight Information Service and Tower)		<p>For each authorisation under a licence of use of a 8.33kHz channel for a base station, the appropriate sum payable is that determined in accordance with—</p> <p>(a) Part 1 of Schedule 15, where the licence is for an area service, as specified in the licence; or</p> <p>(b) Part 3 of Schedule 15, where the licence is for a circular service, as specified in the licence.</p> <p>Where the sum payable exceeds £116.66, then the sum payable is £116.66. Where the total sum payable in respect of a licence is less than £75, then the sum payable is £75. Excluded channels shall not be taken into account.</p>	12 months
Aeronautical Station (Approach)		<p>For each authorisation under a licence of use of a 8.33kHz channel for a base station, the appropriate sum payable is that determined in accordance with—</p>	12 months

		<p>(a) Part 1 of Schedule 15, where the licence is for an area service, as specified in the licence; or</p> <p>(b) Part 3 of Schedule 15, where the licence is for a circular service, as specified in the licence.</p> <p>Where the sum payable exceeds £333.33, then the sum payable is £333.33.</p> <p>Where the total sum payable in respect of a licence is less than £75, then the sum payable is £75. Excluded channels shall not be taken into account.</p>	
Aeronautical Station (Area Control)		<p>For each authorisation under a licence of use of a 8.33kHz channel for a base station, the appropriate sum payable is that determined in accordance with—</p> <p>(a) Part 1 of Schedule 15, where the licence is for an area service, as specified in the licence; or</p> <p>(b) Part 3 of Schedule 15, where the licence is for a circular service, as specified in the licence.</p> <p>Where the sum payable exceeds £333.33, then the sum payable is £333.33.</p> <p>Where the total sum payable in respect of a licence is less than £75, then the sum payable is £75. Excluded channels shall not be taken into account.</p>	12 months
Aeronautical Station (High Frequency)	£350		12 months
Aeronautical Station (Offshore)		<p>(a) Where the licence does not authorise the use of one or more associated mobile stations, the appropriate sum payable is £116.66 for each authorisation under a licence of use of a 8.33kHz channel for a base station.</p> <p>(b) Where the licence authorises the use of one or more associated mobile stations, the appropriate sum payable is £116.66 for each authorisation under a licence</p>	12 months

		of use of a 8.33kHz channel for a base station and an additional sum of £75 per channel. Excluded channels shall not be taken into account.	
Aeronautical Station (Recreational Aviation)		£75 for each licence. Excluded channels shall not be taken into account.	12 months
Aeronautical Station (Very High Frequency Data Link)		For each authorisation under a licence of use of a 8.33kHz channel for a base station, the appropriate sum payable is that determined in accordance with Part 1 of Schedule 15. Where the sum payable exceeds £333.33, then the sum payable is £333.33. Where the total sum payable in respect of a licence is less than £75, then the sum payable is £75. Excluded channels shall not be taken into account.	12 months

(b) In relation to the licence classes “Aircraft” and “Aircraft (Transportable)”, in Column 4 substitute “36 months” for “12 months”.

(3) Under the heading “**Broadcasting**”—

(a) in relation to the licence class “Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts—BBC)”, in Column 2 substitute “£283,708” with “44,944”;

(b) in relation to the licence class “Broadcasting Services (Transmission of National and Regional Analogue Television Broadcasts—Independent Television Networks)”, in Column 2 substitute “£333,243” with “52,791”.

(4) In this regulation—

(a) the Column headed “Class of licence” in Schedule 2 to the principal Regulations shall be designated as “Column 1”;

(b) the Column headed “Fixed sums” in Schedule 2 to the principal Regulations shall be designated as “Column 2”;

(c) the Column headed “Variable sums” in Schedule 2 to the principal Regulations shall be designated as “Column 3”;

(d) the Column headed “Prescribed payment interval” in Schedule 2 to the principal Regulations shall be designated as “Column 4”.

(e) where the amendments to Schedule 2 to the principal Regulations prescribed in the preceding paragraphs of this regulation are set out within a four column grid, the four columns of that grid are to be inserted as Columns 1 to 4 of that Schedule.

Amendment of Schedule 4

6. In paragraph (5) of Part 3 of Schedule 4, in the heading of Column 4 of the table, substitute “29.4625–29.4630GHz” with “29.4625–30GHz”.

Amendment of Schedule 5

7. In the table set out in Schedule 5, in relation to “*Medium population areas*”, substitute the grid square reference specified in the fourth row of the last column of entries of grid square references (“TL 500 500”) with “TL 000 500”.

Amendment of Schedule 9

8. In the table set out in Schedule 9, in relation to “*Heavy congestion area*”—
- (a) in Column 2 and Column 3, substitute “£50” with “£75”;
 - (b) in Column 4, substitute “£50” with “£87.50”.

Amendment of Schedule 13

9. In the table set out in Schedule 13, in relation to “*High population area*”—
- (a) in Column 3, substitute “£67.50” with “£92.50”;
 - (b) in Column 4, substitute “£70” with “£127.50”.

Insertion of Schedule 15

10. After Schedule 14, insert the following—

“SCHEDULE 15

Schedule 2

FEES PAYABLE FOR AERONAUTICAL STATIONS

PART 1

FORMULA FOR CALCULATING THE APPROPRIATE SUM FOR A LICENCE FOR AN AREA SERVICE

1. In this Part, subject to paragraph 3, the “appropriate sum” means the amount in pounds sterling which is payable for an Aeronautical Station licence for an area service, as specified in the licence, calculated in accordance with the formula set out in paragraph 2.

2. The formula is—

$$S = RR \div SA \times \pi \times \left[(1.23 \times \sqrt{h}) + r \right]^2$$

where—

“S” means the sum;

“h” means the number corresponding to the height (in feet) of the designated operational coverage, as specified in the licence granted to the licensee;

“RR” means the “reference rate”, being the fee payable for an authorisation under a licence of use of a 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles) of a circle of equivalent area to the designated operational coverage, the area of the designated operational coverage being specified in the licence granted to the licensee;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

3. Where the amount calculated in accordance with the formula set out in paragraph 2 is not a multiple of 50, the appropriate sum shall be the amount in pounds sterling equal to the nearest lower multiple of 50.

PART 2

FORMULA FOR CALCULATING THE APPROPRIATE SUM FOR A LICENCE FOR A BROADCAST SERVICE

4. In this Part, subject to paragraph 7, the “appropriate sum” means the amount in pounds sterling which is payable for an Aeronautical Station licence for a broadcast service, as specified in the licence, being the lesser of:—

- (a) the sum calculated in accordance with the formula set out in paragraph 5; and
- (b) the sum calculated in accordance with the formula set out in paragraph 6.

5. The formula referred to in paragraph 4(a) is—

$$S = RR \div SA \times \pi \times \left[(1.23 \times \sqrt{h}) + r \right]^2$$

where—

“S” means the sum;

“h” means the number corresponding to the height (in feet) of the designated operational coverage, as specified in the licence granted to the licensee;

“RR” means the “reference rate”, being the fee payable for an authorisation under a licence of use of a 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles) of the designated operational coverage, which is specified in the licence granted to the licensee;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

6. The formula referred to in paragraph 4(b) is—

$$S = RR \div SA \times \pi \times (3 \times r)^2$$

where—

“S” means the sum;

“RR” means the “reference rate”, being the fee payable for an authorisation under a licence of use of a 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles) of the designated operational coverage, which is specified in the licence;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

7. Where the amount calculated in accordance with the formulae set out in paragraphs 5 and 6 is not a multiple of 50, the appropriate sum shall be the amount in pounds sterling equal to the nearest lower multiple of 50.

PART 3

FORMULA FOR CALCULATING THE APPROPRIATE SUM FOR A LICENCE FOR A CIRCULAR SERVICE

8.—(1) In this Part, subject to paragraph 10, the “appropriate sum” means the amount in pounds sterling which is payable for an Aeronautical Station licence for a circular service, as specified in the licence, being the greater of the sums specified in paragraphs 8(2) and 8(3).

(2) The sum specified in this paragraph is the lesser of—

- (a) the sum calculated in accordance with the formula set out in paragraph 5; and
- (b) the sum calculated in accordance with the formula set out in paragraph 9.

(3) The sum specified in this paragraph is the sum in pounds sterling equal to a quarter of the sum calculated in accordance with the formula set out in paragraph 5.

9. The formula referred to in paragraph 8(2)(b) is—

$$S = RR \div SA \times \pi \times (3.5 \times r)^2$$

where—

“S” means the sum;

“RR” means the “reference rate”, being the fee payable for an authorisation under a licence of use of a 8.33 kHz channel over a surface area of 71,000 square nautical miles, which is equal to a fixed sum of £3,300;

“SA” means the number corresponding to the surface area (in square nautical miles) of the United Kingdom, being 71,000;

“r” means the number corresponding to the radius (in nautical miles) of the designated operational coverage, which is specified in the licence granted to the licensee;

“π” means “Pi”, being the ratio of the circumference of a circle to its diameter expressed to 3 decimal places, which is equal to 3.142.

10. Where the amount calculated in accordance with paragraphs 5, 8(3) and 9 is not a multiple of 50, the appropriate sum shall be the amount in pounds sterling equal to the nearest lower multiple of 50.”

Annex 7

Glossary

AGS	Aeronautical Ground Station
AIP	Administered Incentive Pricing
CAA	Civil Aviation Authority
DOC	Designated Operational Coverage
DSO	Digital Switchover
EC	European Commission
erp	Effective radiated power
EU	European Union
FL	Flight level
GHz	Gigahertz
ICAO	International Civil Aviation Organisation
kHz	Kilohertz
MHz	Megahertz
NM	Nautical Miles
RIA	Regulatory Impact Assessment
RR	Reference Rate
SA	Surface Area
SRSP	Strategic Review of Spectrum Pricing
TSA	Total Sterilised Area
VHF	Very High Frequency
WT Act	Wireless Telegraphy Act 2006