



Satellite Spectrum Pricing

Decision to make the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2009

Statement

Publication date: 23 January 2009

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Section 1

Executive Summary

Introduction

- 1.1 This statement confirms that, following consultation, we made the Wireless Telegraphy (Licence charges) (Amendment) Regulations 2009 (the “Amendment Regulations”) on 20 January 2009, and they are coming into force on 13 February 2009. A copy of the Amendment Regulations can be obtained through the Office of Public Sector Information (OPSI).¹
- 1.2 The Amendment Regulations change the charges for Satellite (Permanent Earth Station) licences. We are also making two administrative changes in order reduce the number of satellite earth station network licence products and to simplify the coordination process for these licences.
- 1.3 The changes outlined in the Amendment Regulations update the Wireless Telegraphy (Licence Charges) Regulations 2005 as follows:
 - introduces the full Administrative Incentive Pricing (AIP) rate for the Satellite (Permanent Earth Stations) licence class;
 - merges the Satellite (Aircraft Earth Station) and the Satellite (Earth Station on Board Train) licence classes into the Satellite (Earth Station Network) licence class; and
 - changes the arrangements for technical coordination of satellite terminals.
- 1.4 The Amendment Regulations finalise the licence fee changes that were outlined in our statement published in January 2008.² The Amendment Regulations implement the full AIP rate resulting in increases to the charges for Satellite (Permanent Earth Station) licensees. The other changes are administrative and will not impact on the level of fees paid for these licence classes.
- 1.5 Before deciding to make the Amendment Regulations, in accordance with the requirements of section 122(4) of the Wireless Telegraphy Act 2006 (the “Wireless Telegraphy Act”), on 2 December 2008 we published a Statutory Notice³ (the “Notice”) containing a draft of the Amendment Regulations and invited comments from stakeholders.
- 1.6 We received five responses to the Notice. A summary of the consultation responses that we received is set out in Section 2 of this document. A copy of the responses we received can be viewed on our website.⁴
- 1.7 Having carefully considered the consultation responses we proceeded to make the Amendment Regulations.

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

² <http://www.ofcom.org.uk/consult/condocs/wt/statement/statement.pdf>.

³ http://www.ofcom.org.uk/consult/condocs/spec_pricing08/main.pdf

⁴ http://www.ofcom.org.uk/consult/condocs/spec_pricing08/responses/

- 1.8 A Regulatory Impact Assessment (RIA) is available in Annex 1 of this document. The RIA sets out the risks, costs and benefits of our decision and the effects that these will have on the costs to business, us and citizens and consumers.
- 1.9 A list of respondents is available in Annex 2.

Next steps

- 1.10 We plan on making the necessary changes to the licence fee calculation by 13 February 2009. The new charges will be applied to all new licences and at the renewal date for existing licensees.
- 1.11 We intend to send Notifications of Variation to holders of Satellite (Aircraft Earth Station), Satellite (Earth Station Network) and Satellite (Earth Station on board Train) licences shortly in order to effect the merging of those licence classes.

Section 2

Introduction

Background

- 2.1 On 6 July 2006 we published a consultation document on modifications to spectrum pricing.⁵ That consultation included proposals to update pricing for some satellite licence classes in accordance with the powers granted to us under the Wireless Telegraphy Act 2006 (the “Wireless Telegraphy Act”). The proposals included an update of Administrative Incentive Pricing (AIP) for the Satellite (Permanent Earth Station) licence class so that the fees paid are comparable to those paid by other sectors (e.g. Fixed Link services) which use the same or similar spectrum.
- 2.2 The proposals were to ensure that licence charges reflect the opportunity cost of the spectrum used, thus providing incentives to use spectrum more efficiently. We carefully considered the responses to the policy consultation and on 10 January 2007 we issued a statement on modifications to spectrum pricing.⁶
- 2.3 In the policy statement, we noted that some respondents were concerned that the relatively large increases of fees for the Satellite (Permanent Earth Station) licence class could have significant financial impact on businesses. We therefore decided to phase in the changes, with an initial one year stand-still period followed by a two stage introduction of the fee increases.
- 2.4 On 13 November 2007, we published a notice of our proposal to make regulations relating to Satellite Services licences.⁷ On 23 January 2008 we published a statement advising that we had made regulations which implemented the first of the phased increments for the Satellite (Permanent Earth Station) licence class. This was achieved by introducing band factor values in the fee formula.⁸ The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008 came into force on 13 February 2008.⁹
- 2.5 Before deciding to make the Amendment Regulations, in accordance with the requirements of section 122(4) of the Wireless Telegraphy Act 2006 (the “Wireless Telegraphy Act”), on 2 December 2008 we published a Statutory Notice¹⁰ (the “Notice”) containing a draft of the Amendment Regulations and invited comments from stakeholders.
- 2.6 We carried out a Regulatory Impact Assessment (RIA) as part of the process of making the Amendment Regulations, this can be found in Annex 1. The RIA along with previous work on the economic approach to using AIP has driven our decision making process.

⁵ Modifications to Spectrum Pricing: <http://www.ofcom.org.uk/consult/condocs/pricing06/pricing06.pdf>

⁶ Modifications to Spectrum Pricing (Statement):
<http://www.ofcom.org.uk/consult/condocs/pricing06/statement/statement.pdf>

⁷ Notice to make Wireless Telegraphy Licence Charge Regulations

<http://www.ofcom.org.uk/consult/condocs/wt/condoc.pdf>

⁸ Decision to make Wireless Telegraphy Licence Charge Regulations

<http://www.ofcom.org.uk/consult/condocs/wt/statement/>

⁹ The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008

http://www.opsi.gov.uk/si/si2008/uksi_20080139_en_1

¹⁰ Notice of proposal to make the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2009
http://www.ofcom.org.uk/consult/condocs/spec_pricing08/main.pdf

Responses to the Notice

- 2.7 We received five responses to the Notice.
- 2.8 There was widespread support for our proposal to merge the existing satellite earth network licence classes (Satellite (Earth Station Network) licence, Satellite (Aircraft Earth Station) licence and Satellite (Earth Station on Board Train) licence) into one Satellite (Earth Station Network) licence. A couple of the responses requested that we look into further deregulating these terminals inline with other European countries. One comment suggested that European developments in the aviation industry may mean that this issue could need to be revisited in the future.
- 2.9 We welcome these comments and we will be looking for further opportunities to deregulate satellite network terminals. However, it is not possible to licence exempt such terminals due to the requirement to coordinate and go through a site clearance process. We will monitor developments in the aviation industry and make the changes to the regulations if required to do so.
- 2.10 The issue of the general policy of applying AIP to satellite services was raised in a number of the responses. Other comments suggested that further work needs to be undertaken to examine the opportunity cost of satellite earth stations in comparison to other services, as the assumption that communication technologies using the spectrum are on an equal footing may be flawed. One response stated that social and emergency services may be unable to compete if they are required to pay for licences on an 'opportunity cost' basis.
- 2.11 The Notice sought to consult on the content of the regulations and not the policy implications of the application of AIP, as we have already explained our decision in our statement published in January 2007. We feel that the continued application of AIP to satellite earth stations is appropriate because it promotes the efficient use of spectrum. The basis for our assumptions was based on studies carried out by NERA and Smith Systems Engineering LTD,¹¹ the Cave Review¹² and Indepen¹³.
- 2.12 One respondent commented that it was not feasible for the satellite community to absorb a typical increase of 100-200% for Satellite (Permanent Earth station) licences over a two year timescale.
- 2.13 We appreciate the concern raised regarding the increase in fees that will apply to satellite operators. However, we consider that the two-year phased introduction, along with an initial one year stand-still period, is a reasonable timescale for the expected level of fee increase. We decided to phase the introduction of the fee increase following stakeholder feedback on the original consultation on 10 July 2006. The timetable for the phased introduction reflects those proposed by respondents to that consultation. It is also worth noting that before 2002, fees for satellite earth stations were set higher than the level that we now plan to implement.

¹¹ Study into the use of Spectrum Pricing, Study for the Radiocommunications Agency, NERA and Smith System Engineering Limited, April 1996

http://www.ofcom.org.uk/research/radiocomms/reports/independent_review/spectrum_pricing.pdf

¹² Review of Radio Spectrum Management, Study for Department of Trade and Industry and Her Majesty's Treasury, Martin Cave, March 2002

http://www.ofcom.org.uk/static/archive/ra/spectrum-review/2002review/1_whole_job.pdf

¹³ 2004 report on an economic study to review spectrum pricing by Indepen, Aegis Systems and Warwick Business School.

http://www.ofcom.org.uk/research/radiocomms/reports/independent_review/spectrum_pricing.pdf

- 2.14 In one of the responses we received, it was stated that it is likely that these fees will increase in future. The respondent requested that we confirm that there will be no further increase to the licensing charges for satellite earth stations in the medium term.
- 2.15 We endeavour to ensure that licensees have certainty regarding the fees that they will be charged. We expect to review licence fee levels periodically, and are committed to conducting a general review of spectrum pricing. Preliminary work on this started in late 2008 and we hope to be able to be clear about the scope and timing of this review soon. If, as a result of that review or a separate periodical review of particular fee rates, we considered that it would be right to change the basis of charging any fees, we would conduct a public consultation and consider responses from stakeholders before finalising any decisions. We would also take into account recent changes to any fees in proposing the timing of further changes, bearing in mind the value for users of certainty about spectrum costs.
- 2.16 One of the respondents raised an issue with comments made in the RIA, in particular that the increased costs to licensees would be offset by efficiency savings benefiting the whole economy was both unqualified and unquantified.
- 2.17 The impact of the proposals put forward in the Notice was only provided in qualitative terms since in general the quantification of the benefits and costs of each proposal had not been possible. Having reviewed the RIA we have now amended the text and have included further analysis on the options and the impacts this will have. We are satisfied that the analysis undertaken shows that the benefits of our proposals outweigh the costs and that the net benefits of our decision in relation to the proposals appear greater than those of the alternative option considered. Further analysis on the economic approach to the use of AIP and the efficiencies this would generate was outlined in Annex 6 of our policy consultation "Modifications to Spectrum Pricing" published on 6 July 2006.¹⁴

Changes to the regulations

- 2.18 We have now introduced the second phased increment for the Satellite (Permanent Earth Station) licence class through a further amendment to the Wireless Telegraphy (Licence Charges) Regulations 2005 (the "Principal Regulations").¹⁵ This implements the full AIP rate for Satellite (Permanent Earth Station) licences as proposed in the policy statement of 10 January 2007.
- 2.19 Some additional housekeeping changes have been made. The first was to reflect the reduction in the number of satellite earth station network licence products. References to the "Satellite (Aircraft Earth Station)" and the "Satellite (Earth Station on Board Train)" licence classes have been removed and existing licensees will be transferred into the Satellite (Earth Station Network) licence class, there is no impact on the level of fees charged to licence holders.
- 2.20 The second change was to reflect the new way in which we will deal with coordination requests for Satellite (Earth Station Network) licences. Previously, an additional charge of £200 was made for each terminal that required technical coordination by us resulting in the variation of a licence. We have simplified our approach so that terminals requiring technical coordination undergo a simple

¹⁴ Modifications of Spectrum Pricing <http://www.ofcom.org.uk/consult/condocs/pricing06/pricing06.pdf>.

¹⁵ Wireless Telegraphy (Licence Charges) Regulations 2005 <http://www.opsi.gov.uk/si/si2005/20051378.htm>

registration process rather than a licence variation. The charge for technical coordination of a terminal remains at £200.

Satellite (Permanent Earth Station)

- 2.21 The increase for Satellite (Permanent Earth Station) licence fees applies the full AIP rate and will provide incentives to use spectrum more efficiently. We decided to use a phased approach after considering responses from stakeholders on the original policy consultation. This method for a phased implementation of the full AIP rate was set out in the policy statement published on 10 January 2007. The structure of the fee formula remains unchanged but some of the band factor values have been increased to represent the full AIP rate as indicated in the notice.
- 2.22 The fee formula is shown below with the modified band factor values shown in column 3 of Table 1. These band factors have replaced the previous band factor values which are shown in column 4.

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

where:

“AS” means the appropriate sum;

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

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

“ $paths_{band}$ ” means the set of those transmission paths authorised by the licence for which the authorised transmission frequency lies within the frequency range of each band as set out in Column 2 of Table 1;

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

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

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

Table 1. Changes in Band Factors.

Band	Range of frequency band (<i>fb</i>) (in GHz)	New band factor (BF)	<i>Previous band factor (BF) (introduced in February 2008)</i>
1	$fb < 5$	2.33	1.54
2	$5 \leq fb < 10$	1.72	1.23
3	$10 \leq fb < 16$	1.00	0.87
4	$16 \leq fb < 24$	0.70	0.70
5	$fb \geq 24$	0.60	0.60

- 2.23 We intend to change the band factor by 13 February 2009 so that the revised fees will apply to licences that are due for renewal at the end of February 2009. For licences that are due for renewal after February 2009, the revised fees will be charged on the relevant renewal date.

Satellite (Aircraft Earth Station), Satellite (Earth Station Network) and Satellite (Earth Station on Board Train)

- 2.24 We previously had three licence classes for satellite earth station networks - Satellite (Aircraft Earth Station), Satellite (Earth Station Network) and Satellite (Earth Station on Board Train). The only difference between the licence classes is the type of installation, i.e. fixed or mobile.
- 2.25 In order to simplify the licensing process we merged all three licence classes into the Satellite (Earth Station Network) licence product. The three products are similar in nature in that they all involve very small aperture terminal (VSAT)-type satellite terminals operating in a network. This will not change the fees as all three licences are charged in the same way and are subject to the same charging principals.
- 2.26 The new Amendment Regulations coming into force does not in itself change current licensing arrangements. These will only apply once the existing licences are migrated into the new single licence product. In order to combine Satellite (Aircraft Earth Station) and Satellite (Earth Station on Board Train) licences into the Satellite (Earth Station Network) licence class we will be issuing a Notice of Variation to licensees.
- 2.27 In order to do this we must follow a formal process of licence variation as set out in Schedule 1 of the Wireless Telegraphy Act. This process can be summarised as follows. We will:
- 2.27.1 give notice in writing to individual licensees setting out what is changing for them and the reasons for this;
 - 2.27.2 allow licensees a minimum of one month to make any representations to Ofcom in respect of the notification;
 - 2.27.3 take no more than one month to consider any such representations and to determine whether to proceed with the variation;
 - 2.27.4 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

- 2.27.5 issue new licences to all licensees once the variation process is complete.
- 2.28 We hope to issue proposed variations to existing earth station network licences Satellite (Aircraft Earth Station), Satellite (Earth Station Network) and Satellite (Earth Station on board Train) shortly.
- 2.29 As well as merging the existing earth station network licences as described above, we have made some changes which relate to the arrangements for technical coordination (site clearance) of the satellite terminals. When a terminal needs to be coordinated by us we no longer vary the licence but instead carry out a simple registration process.
- 2.30 The change of wording in the Amendment Regulations will mean that the additional charge of £200 for coordination of a terminal still applies once we move to the registration process. The changes have no impact on the level of fees charged to licence holders.

Section 3

General effect of the Wireless Telegraphy (Licence charges) (Amendment) Regulations 2009

The Legislative Framework

- 3.1 The Amendment Regulations amend the existing legal framework for the spectrum pricing arrangements that apply to some Wireless Telegraphy Act Satellite Services licence classes. In making the Amendment Regulations, we have had regard to the matters specified in section 3 of the Wireless Telegraphy Act and are exercising our powers under sections 12 and 13 of the Wireless Telegraphy Act and section 403 of the Communications Act.

Extent of application

- 3.2 The Amendment Regulations will apply in the United Kingdom, Jersey and the Isle of Man.

Changes to the Principal Regulations

- 3.3 Regulation 1 sets out the citation and commencement of the Amendment Regulations.
- 3.4 Regulation 2 provides for the amendment of the Principal Regulations.
- 3.5 Regulation 3 removes the licence classes Satellite (Aircraft Earth Station) and Satellite (Earth Station on board Vessel) from the interpretation in Regulation 3 of the Principal Regulations.
- 3.6 Regulation 4 amends Schedule 2 to the Principal Regulations to omit the licence classes Satellite (Aircraft Earth Station) and Satellite (Earth Station on board Train) from the Satellite Services sector.
- 3.7 Regulation 4(2)(c) deletes “resulting in the variation of a licence” from the text for variable sums for Satellite (Earth Station Network) licences. The revised text would read to “For each terminal requiring technical coordination by Ofcom £200”.
- 3.8 Regulations 5(1) and 5(2) change the fee table used for the calculation of Satellite (Permanent Earth Station) licence in Part 2 of Schedule 8 to the Principal Regulations.

Annex 1

Regulatory Impact Assessment

Introduction

- A1.1 In accordance with Government practice, where a statutory regulation is proposed, a Regulatory Impact Assessment (“RIA”) must be undertaken. The analysis presented here, when read in conjunction with the regulatory statement, Decision to make the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2009 (the “Amendment Regulations”) published on 22 January 2009, represents a RIA as defined by section 7 of the Communications Act 2003 (the “Communications Act”) for amending the Wireless Telegraphy (Licence Charges) Regulations 2005 (SI 2005 No. 1378) (the “Principal Regulations”).¹⁶
- A1.2 RIAs provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. This is reflected in section 7 of the Communications Act, which stipulates 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.

Background

- A1.3 In the UK, we are responsible for the authorisation of civil use of the radio spectrum and achieve this by granting licences under the Wireless Telegraphy Act 2006 (the “Wireless Telegraphy Act”). Section 12 grants us the power to recover charges, as determined by us and prescribed by regulations, for the grant of a Wireless Telegraphy Act licence. This power enables us to recover the cost of administering and managing Wireless Telegraphy Act licences. We also have a range of duties under section 3 of the Wireless Telegraphy Act which require us to promote the efficient management and use of the part of the electromagnetic spectrum available for wireless telegraphy. Accordingly, in order to provide incentives to licensees to use their spectrum more efficiently, section 13(2) of the Wireless Telegraphy Act permits us to prescribe and recover sums for Wireless Telegraphy Act licences greater than those necessary to recover the costs that we incur in undertaking our spectrum management functions. This is known as Administrative Incentive Pricing (AIP).
- A1.4 We issued a consultation document in July 2006¹⁷ and subsequent statement in January 2007¹⁸ concerning modifications to spectrum pricing. The policy consultation concerned changes to a number of Wireless Telegraphy Act licence charges and categories, namely those applicable to Broadcasting, Business Radio, Community Radio, Fixed Links, Fixed Wireless Access, Maritime, Programme

¹⁶ Wireless Telegraphy (Licence Charges) Regulations 2005: <http://www.opsi.gov.uk/si/si2005/20051378.htm>.

¹⁷ Modifications to Spectrum Pricing: <http://www.ofcom.org.uk/consult/condocs/pricing06/>

¹⁸ Modifications to Spectrum Pricing (Statement): <http://www.ofcom.org.uk/consult/condocs/licencecharges/statement/wtstatement.pdf>

Making and Special Events, Public Wireless Networks, Satellite Earth Stations and Science and Technology. The majority of these changes were implemented by the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2007 which came into force on 27 August 2007.¹⁹

- A1.5 On 13 November 2007, we published a notice of our proposal to make Wireless Telegraphy (Licence Charge) (Amendment) Regulations relating to Satellite Services licences.²⁰ On 23 January 2008 we published a statement advising that we had made regulations which implemented the proposed fee changes.²¹ The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008 regulations came into force on 13 February 2008.²² In the statement we advised stakeholders of our intention to implement the second and final phase of the fee change the following year.
- A1.6 Before deciding to make the Amendment Regulations, in accordance with the requirements of section 122(4) of the Wireless Telegraphy Act, on 2 December 2008 we published a Statutory Notice²³ (the “Notice”) containing a draft of the Amendment Regulations and invited comments from stakeholders.

Regulatory change

- A1.7 This RIA relates to the decision to update and modify licence charges for Wireless Telegraphy Act licences. The Amendment Regulations will amend the Principal Regulations. The changes that we have made were to introduce the full AIP rate for Satellite (Permanent Earth Station) licences. We also took the opportunity to make other changes intended to simplify the earth station network licence class.

The citizen and/or consumer interest

- A1.8 We took account of the impact of our decisions on both citizen and consumer interests in the markets we regulate. In implementing changes to the Principal Regulations we considered the wider impact beyond immediate stakeholders in the radiocommunications community. We believe that the our decision will benefit both citizens and consumers for the following reasons:
- i) extended application of AIP would encourage more efficient use of the radio spectrum, potentially making more available to potential new uses and users; and
 - ii) a combined Satellite (Earth Station Network) licence class would reduce the overall number of satellite licence products available and therefore simplify licence processes and reduce regulatory burdens.

Ofcom's policy objective

- A1.9 We have a statutory obligation to make efficient use of the radio spectrum. The Wireless Telegraphy Act enables us to charge administered incentive pricing for

¹⁹ Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2007
<http://www.opsi.gov.uk/SI/si2007/20072326.htm>

²⁰ Notice to make Wireless Telegraphy Licence Charge Regulations
<http://www.ofcom.org.uk/consult/condocs/wt/condoc.pdf>

²¹ Decision to make Wireless Telegraphy Licence Charge Regulations
<http://www.ofcom.org.uk/consult/condocs/wt/statement/>

²² The Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2008
http://www.opsi.gov.uk/si/si2008/uksi_20080139_en_1

²³ Notice of proposal to make the Wireless Telegraphy (Licence charges) (Amendment) Regulations 2009
http://www.ofcom.org.uk/consult/condocs/spec_pricing08/main.pdf

licences. Additionally, we seek wherever possible, to reduce the regulatory burden upon our stakeholders, in this instance users of satellite earth station networks. One way in which we can do this is to simplify and rationalise licence products available to consumers.

Options considered

Satellite (Permanent Earth Station) licence fee change

A1.10 The options open to us in relation to the proposed fee change to Satellite (Permanent Earth Station) Wireless Telegraphy Act licences fall into the following categories:

- i) maintain existing charges for licences; or
- ii) charge licensees based on full AIP rate.

Satellite (Earth Station Network) licence class change

A1.11 The options open to us in relation to the proposed changes to licence class were as follows;

- i) maintain existing licence classes and categories of licence products; or
- ii) merge licence classes.

Satellite (Earth Station Network) technical coordination process change

A1.12 We did not consider it appropriate to include the change to the wording in the Amendment Regulations that describes the technical coordination process in this RIA. This is an administrative change brought about by the introduction of our new information system. The change will not have any material impact on stakeholders as all other processes and costs remain the same. We will no longer issue a formal variation of a licence but instead will register coordinated terminals against the licence.

Analysis of options

Satellite (Permanent Earth Station) licence fee change

Table 2: Impact analysis

Option	Benefits	Costs/risks
Maintain existing charges for licences	Industry see no change in fee	Fees do not reflect opportunity cost – conflicts with AIP principles and does not promote efficient use of the spectrum Ofcom fails to recover spectrum management costs
Charge for licences based on full AIP rate	Ofcom recovers spectrum management costs Consistency of AIP for users sharing the same spectrum Creation of efficient incentives for the use of spectrum	Financial impact on satellite licensees

Maintain existing charges for licences

A1.13 By maintaining existing charges for licences we would not have been complying with our duty to promote the efficient use and management of spectrum. The Decision to charge the full AIP rate for Satellite (Permanent Earth Stations) was clearly set out in our statement “Modifications to spectrum pricing” published on 10 January 2007.²⁴

Charge for licences based on full AIP rate

A1.14 It is appropriate to charge licensees the full AIP rate, in order to reflect the value of spectrum as a scarce resource and promote efficient use and management of spectrum. Further analysis on the economic approach to the use of AIP and the efficiencies this would generate was outlined in Annex 6 of our policy consultation “Modifications to Spectrum Pricing” published on 6 July 2006.²⁵

Satellite Earth Station Network licence class change

Maintain existing licence classes and categories of licence products

A1.15 By maintaining existing licence classes and products we may not have been acting to reduce regulatory burdens in areas where it is possible for us to do so. In

²⁴ Modifications to Spectrum Pricing <http://www.ofcom.org.uk/consult/condocs/pricing06/statement/statement.pdf>

²⁵ Modifications of Spectrum Pricing <http://www.ofcom.org.uk/consult/condocs/pricing06/pricing06.pdf>.

addition, we may have been failing to consider whether existing licence classes and products are adequate or necessary to meet the needs of stakeholders.

Merge licence classes

A1.16 By merging the existing satellite earth station network licence classes we would simplify the licensing process for these classes of licence and may reduce regulatory burdens on licensees and the costs that Ofcom incurs.

The preferred options

A1.17 In relation to the Wireless Telegraphy Act licence fee change and the changes associated with satellite earth station network licences, our preferred options are to:

- adjust licence charges in order to introduce the full AIP rate comparable with other sectors (for example fixed links, which use the same or similar spectrum) specifically in relation to Satellite (Permanent Earth Station); and
- simplify the licence classes to merge the Satellite (Aircraft Earth Station) and Satellite (Earth Station on Board Train) licences into the Satellite (Earth Station Network) licence product.

Benefits

A1.18 The expected benefits of the Amendment Regulations are a reduction in the regulatory burden on stakeholders arising from the simplification of licence processes and removal of the Satellite (Aircraft Earth Station) and Satellite (Earth Station on Board Train) licences and their merger into the Satellite (Earth Station Network) licence class. Continued use of AIP, where relevant, will help to ensure efficient use of spectrum.

Costs to business

A1.19 The fee increases for the Satellite (Permanent Earth Station) licence would affect a number of licensees. Typical increases for licence charges in various frequency bands are shown below

Table 3: Typical impact of fee increase on Permanent Earth Station licensees

Licence Type	% increase in licence fee
Permanent Earth station operating at 6 GHz	~40%
Permanent Earth station operating at 14 GHz	~15%
Permanent Earth station operating at 28 GHz	No change

A1.20 While the cost of the Satellite (Permanent Earth Station) licence will increase as a result of the introduction of the Amendment Regulations, these costs need to be offset against the benefits to the UK economy as a whole from more efficient use of spectrum. Wireless Telegraphy Act licences enable Ofcom to recover the administrative cost of issuing and processing licences as well as enforcement and indirect costs.

Costs to us

- A1.21 There are one-off administrative costs associated with making a Statutory Instrument. We consider the implementation costs to be low. There may be a slight reduction in spectrum management costs in certain areas.

Conclusion

- A1.22 We considered that promoting more efficient use of spectrum and reducing the regulatory burden on some licensees brought about by the introduction of the regulations outweigh the costs of their introduction. We therefore decided to amend the Principal Regulations. We will continue to monitor the effect of the regulations as part of our ongoing review of spectrum pricing policy. We usually review the pricing regulations themselves every two years.

Annex 2

List of respondents

Civil Aviation Authority

Eutelsat

New Skies Networks (UK) LTD

Paradigm Services

Schlumberger Information Solutions