Notice of Ofcom’s proposals to make regulations: Spectrum Trading and the Wireless Telegraphy Register

Consultation document

Issued: 29 September 2004
Closing date for responses: 1 November 2004
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Section 1

Summary

1.1 One of Ofcom’s duties under the Communications Act 2003 (the “Act”) is to ensure the optimal use of the radio spectrum in order to further the interests of citizens and consumers. This has become increasingly difficult in recent decades as the demand for spectrum has grown for existing uses, and entirely new uses of spectrum have developed. As a result, spectrum management has increasingly involved finding ways of allocating spectrum most efficiently between competing uses and users.

1.2 Ofcom is committed to the development of new approaches to management of the radio spectrum which will help to promote innovation and competition in the provision of wireless services across the UK. A key aspect of this is the introduction of spectrum trading which will allow holders of wireless telegraphy licences to transfer to third parties some or all of the rights and associated obligations they enjoy as a result of those licences. This will help to optimise the use of the finite spectrum resource by enabling spectrum to migrate to users that will use it most efficiently, thus benefiting the UK economy. (Wireless telegraphy licences are granted by Ofcom under section 1 of the Wireless Telegraphy Act 1949. Under that section it is a criminal offence to use a station or apparatus for wireless telegraphy (transmission) except where authorised by a licence or exemption regulation.)

1.3 In November 2003 Ofcom published a Consultation Document on Spectrum Trading¹.

1.4 Following feedback from this consultation exercise, Ofcom published a Statement², in August 2004, explaining that spectrum trading will be introduced in the UK through a phased approach, starting from the end of 2004. The statement set out the licence classes that would be included in the first phase, the types of transfer that will be permitted for each of these classes and described the process that should be followed to enact a trade. In addition, the statement explained the steps that Ofcom will take to facilitate the trading process, including publication of relevant information in a wireless telegraphy register and modification of licences.

1.5 In order to introduce a spectrum trading regime Ofcom must make regulations under the powers conferred by section 168 of the Act. The regulations which Ofcom proposes to make are set out in Annex 3.

1.6 In addition, in order to establish and maintain the wireless telegraphy register Ofcom must make regulations under section 170 of the Act. The regulations which Ofcom proposes to make are set out in Annex 4. The register will enable information about wireless telegraphy licences that was previously confidential to be published. The register will provide basic information about licences and licensees such as names, contact details, class of licence, the band(s) of frequencies and, where appropriate, the geographical area of operation.

1.7 The August 2004 statement explained what would be covered by each of these regulations. In addition, Ofcom included preliminary drafts of the two regulations as an annex to the statement and invited initial comments on

¹ http://www.ofcom.org.uk/consultations/past/spec_trad/spectrum_trading/?a=87101
² http://www.ofcom.org.uk/consultations/past/spec_trad/statement/
these preliminary drafts by 31 August 2004. These comments have been taken into account and the drafting of the proposed regulations has been amended slightly. We also explained that Ofcom would publish the draft regulations for one month statutory consultation in September and that consequently stakeholders would have another opportunity to comment at this point.
Section 2

Notice of proposals

2.1 Ofcom proposes to make the Wireless Telegraphy (Spectrum Trading) Regulations and the Wireless Telegraphy (Register) Regulations attached in Annexes 3 and 4.

2.2 A Regulatory Impact Assessment for each set of regulations is attached at sections 5 and 6. These set out the risks, costs and benefits of the proposals and the effects that the proposals will have on the costs to business.

2.3 The general effect of the draft Spectrum Trading Regulations and the Register Regulations is set out in sections 3 and 4.

2.4 Comments or representations with respect to the proposed regulations are invited by Monday 1 November 2004. This is shorter than Ofcom’s standard 10 week period as stakeholders have already had the opportunity to comment on the earlier preliminary drafts. A one month consultation on these regulations reflects statutory requirements. Comments should be sent to:

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Competition and Markets
Ofcom
2a Riverside House
Southwark Bridge Road
London SE1 9HA.

Chris.woolford@ofcom.org.uk

Tel: 020 7783 4185
Fax: 020 7783 4103

2.5 Following this consultation, Ofcom intends to make the final regulations in November which will allow for the effective introduction of trading from December 2004.

2.6 Further copies of this notice and the proposed Spectrum Trading Regulations and the Register Regulations can also be obtained from the above point of contact.

2.7 Electronic copies are also available and this notice has been placed on Ofcom’s web site.
Section 3

General effect of the proposed Trading Regulations

The legislative framework

3.1 These regulations are to be made under section 168(1) and (3) of the Communications Act 2003. Section 168 implements Article 9(3) and (4) of the Directive of the European Parliament and of the Council of 7th March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) (2002/21/EC). Under section 168(1) of the Act Ofcom may by regulations authorise the transfer to another person by the holder of a wireless telegraphy licence, or the holder of a grant of recognised spectrum access, of rights and obligations arising by virtue of such a licence or grant.

3.2 Under section 168(4) and (5) transfers that fail to comply with these regulations (or with certain conditions in licences) will be void.

3.3 A draft of the regulations which Ofcom proposes to make under section 168(1) and (3) is set out at Annex 3. This draft takes account of comments received following publication in August 2004 of the statement on spectrum trading which contained a preliminary draft of the regulations.

Extent of application

3.4 The regulations will apply in the UK. They will not extend to Guernsey although that may change in future through amending regulations. In addition, the regulations cannot extend to Jersey or the Isle of Man because there has not been an Order in Council which extends the application of section 168 of the Act to these jurisdictions. This is the effect of regulation 2.

Total transfers

3.5 Regulation 4(1) authorises the transfer of all rights and obligations arising by virtue of the wireless telegraphy licences of the classes listed in Column 1 of each Part of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part.3

Partial transfers

3.6 Regulation 6(a)(i) to (iv) authorises the transfer of rights and obligations relating to parts of the licensed range of frequencies for licences granted for the Public Mobile Operator sector, the Fixed Wireless Access sector, Point to Point Fixed Links licences and Scanning Telemetry licences.

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3 In the consultation, “Spectrum Pricing - A consultation on proposals for setting wireless telegraphy act licence fees”, Ofcom is proposing a number of name changes to licence classes & sectors. The proposed business radio sector will cover a range of licence classes, including Private Business Radio (PBR), Public Access Mobile Radio (PAMR), Common Base Stations (CBS), Public Mobile Operator National Paging and Data Networks. It is also proposed that the Broadband Fixed Wireless access class will be known as Fixed Wireless Access.
3.7 For the Public Mobile licences (set out in Part I of the Schedule) and the Scanning Telemetry licences (set out in Part VI), which apply to a station or apparatus operation within any of the frequencies set out in the same Part, partial transfers of whole and part frequency channels (which must have a bandwidth of 12.5 kHz) are authorised by regulation 6(a)(i) and (ii).

3.8 The transfer of fixed links is authorised by regulation 6(a)(iii).

3.9 For Fixed Wireless Access licences in the 3.4 GHz band and Broadband Fixed Wireless Access licences, transfers of rights relating to any part of the licensed frequencies is authorised by regulation 6(a)(iv). Regulation 6(a)(v) permits partial transfers of these licences on the basis of part of the licensed geographical area. Partial transfers of rights relating to both frequency and geography are authorised by regulation 6(a)(vi).

**Types of transfers**

3.10 Two types of transfer are authorised by regulation 4(1) and regulation 6 (regardless of whether the transfer is “total” or “partial”).

3.11 Firstly, a transfer may be one in which the rights and obligations of the person making the transfer become rights and obligations of the transferee to the exclusion of the person making the transfer (“outright transfer”).

3.12 Secondly, a transfer may be one in which the transferred rights and obligations become rights and obligations of the transferee while continuing, concurrently, to be rights and obligations of the person making the transfer (“concurrent transfer”).

3.13 Under an outright transfer, the rights and obligations being traded are transferred in their entirety from one party to another. Thus the original licensee (that traded the spectrum) no longer has any rights to use the traded spectrum.

3.14 Concurrent transfers, on the other hand, enable licensees to share rights to use spectrum as they see fit over a period of time without the need to undertake further transfers between themselves to effect that sharing. In line with our policy of providing licensees with maximum flexibility, Ofcom has decided to offer concurrent transfers from the commencement of trading.

3.15 The draft regulations do not limit the number of concurrent licence holders so, for example, joint holdings by three or more licensees may result from a trade.

3.16 Section 168(2)(a) and (c) of the Act determine the sorts of transfers which Ofcom may authorise in the regulations. To be sure to permit the maximum possible types of transfer Ofcom has decided to mirror in the regulations the wording used in that section. Ofcom considers that under the wording as drafted, (a) outright transfers by concurrent licensees and (b) concurrent transfers by concurrent licensees which result in an increased number of concurrent licensees are both possible.

3.17 The concept of concurrent licence holding is new to the system of UK Wireless Telegraphy licensing. Under such a holding each of the concurrent licensees will jointly hold the same rights and obligations under a licence.
Circumstances in which trades are not authorised

3.18 Regulations 4(1) and 6 which authorise transfers are both subject to regulation 7. Regulation 7 sets out particular circumstances in which transfers are not authorised. These are:

- Where the licence holder (or all of the concurrent holders) and the transferee have not consented to the transfer. This is included in order to ensure that where one of the licence holders or even the transferee have not consented, they will be able to have the transfer declared void by a court (under section 168(4) and (5)) for being in breach of the regulations. However, to offer some protection to Ofcom, since Ofcom is itself involved in putting transfers into effect, all of the parties must provide a consent form to Ofcom (regulation 8(e)).

- Where licence fees are outstanding or where the licence holder has opted to pay Ofcom its licence fee by instalments. In the latter situation, the licensee could pay up its outstanding instalments under a licence and then approach Ofcom with a proposed transfer.

- Where Ofcom has served notice under section 1E(1) of the Wireless Telegraphy Act 1949 of a proposal to revoke or vary the licence. That notice is served around two months prior to the final revocation decision. In the case of a notice concerning a licence variation this will not in fact be an obstacle to trade because if the licensee consents to the variation being made and, if that happened, the licence amendment would be implemented quickly.

3.19 If Ofcom has served a notice under the licence (for example 5 years notice to revoke or vary for spectrum management reasons) then the licence is tradable until the section 1E notice is served. But Ofcom will institute a procedure to ensure that any transferee will take the licence subject to the notice. (A transferee cannot acquire any greater rights under the licence than those held by the transferor.)

3.20 During the short period between a licensee requesting a licence revocation or variation (or consenting to a variation or revocation proposed by Ofcom) and the revocation or variation being implemented a transfer is also not authorised.

3.21 Finally, a transfer is not authorised where Ofcom has not consented to it being made.

The transfer process

Notification of a trade

3.22 Once a transfer has been agreed, the licence holder or concurrent holders must notify Ofcom about the proposed trade (regulation 8(1)). The regulations require that Ofcom receives a document confirming that all parties to the trade have consented to the proposed transfer. This should be signed by or on behalf of:

- the holder or each concurrent holder of a licence; and
• the transferee or transferees to whom rights and obligations are to be transferred.

3.23 Ofcom will also require other information such as the name and address of the proposed transferee, a description of the type of transfer which is to be effected and any information necessary for Ofcom to determine whether it shall consent to the transfer. Parties who give false information or who seek to implement transfers without obtaining the necessary consent will be in breach of the regulations and the transfer could therefore be void.

3.24 Once all the information is provided, Ofcom will check the documentation in order to ensure that the mandatory information requirements have been met and that the proposed transfer is consistent with the information held by Ofcom. Ofcom will then publish a notice stating the names of the transferor and the transferee and setting out basic information about the licence (regulation 8(2)). Both notification to Ofcom of proposed transfers and publication of transfers are requirements of the Framework Directive.

3.25 Ofcom will require all information necessary for it to consent to the transfer (regulation 8(1)(f)).

Giving consent to a trade

3.26 Some stakeholders suggested that Ofcom should include deadlines in the regulations setting out the time it would take to decide whether or not to consent to a transfer. Ofcom does not think that such rigid deadlines would be appropriate as we consider that the priority is to make well justified decisions, rather than be bound by statutory timing requirements. Nonetheless, we recognise that it is important to the success of trading that Ofcom makes timely decisions. Consequently, Ofcom intends to publish guidelines on the trading process, including targets for the time taken to consent (or not) to a trade.

3.27 When deciding whether or not to consent to a transfer, Ofcom must (under regulation 10) take into account the following factors:

• whether the holder (or concurrent holders) of the licence is/are in breach of the terms of the licence. This has been included because Ofcom cannot rule out that there may be situations in which an existing licensee is in breach of his licence obligations and attempts to transfer the licence in order to escape these obligations.

• whether the transferee (and the transferor in the case of a partial transfer) is able to meet the terms of the licence. This is included because there may be situations in which it is clear that the transferee will not be able to comply with the terms of the licence. Companies should not be able to acquire licences through trading if they would be ineligible to be granted one by Ofcom in other circumstances. Ofcom should take an applicant’s ability to comply with licence terms into account when considering whether to refuse to grant a licence (section 1D(5) of the Wireless Telegraphy Act 1949. See also regulation 4 of the Wireless Telegraphy (Limitation of Number of Licences Order) 2003 SI 2003/1902).

4 Article 9(4) Framework Directive (2002/21/EC)
• where a licence to be transferred includes a non-spectrum licence condition (such as a roll out obligation) Ofcom will assess the ability of the transferee to fulfil the condition. If Ofcom is of the opinion that the non-spectrum licence condition will not be fulfilled, then Ofcom may refuse to consent to the transfer.

• whether the transferee is able to meet any criteria in relation to the persons to whom a wireless telegraphy licence may be granted. Again, this is imposed to deal with any situation where companies are attempting to gain a licence which they otherwise would be ineligible to apply for. (Such criteria are generally set out in the Wireless Telegraphy (Limitation of Number of Licences Order) 2003 SI 2003/1902).

• whether it is requisite or expedient for Ofcom to refuse consent because Ofcom has to meet national security concerns, comply with European Community or international obligations or a direction by the Secretary of State.

3.28 It has been suggested that Article 14(1) of the Authorisation Directive (2002/20/EC) might apply to the spectrum trading process. This would require Ofcom to allow stakeholders adequate time to comment on proposed trades and would require Ofcom to take account of any such comments. Having considered the matter, Ofcom does not consider that Article 14(1) applies for transfers of licensed rights made under the trading regulations. Clearly, however, if something is bought to our attention which is relevant to the trading regulations, then we will take account of it when deciding whether or not to give consent to a trade. Further, we have explained above that Ofcom intends to publish guidelines on the trading process which will include timing targets for deciding whether to give consent to a trade.

3.29 Ofcom anticipates that in some circumstances it may be able to consent to a transfer but give a direction to the parties to the trade that the transfer will only be put into effect when certain of the above matters are resolved. This is permitted by regulation 11.

Enacting the transfer

3.30 Ofcom must decide whether to consent to the transfer and whether to issue directions. It must then notify the parties.

3.31 In order to effect a transfer, the transferor’s licence will need to be surrendered. In the case of an outright transfer, Ofcom will then grant a new licence on the same terms and conditions to the transferee. In the case of a partial transfer Ofcom will grant new licences with the appropriate terms and conditions to both the transferor and the transferee. In the case of a concurrent transfer Ofcom will also issue a replacement licence to both the transferor and the transferee. (Regulation 8(5))

3.32 Once the transfer has been effected, Ofcom will update its public notice of the transfer to indicate that the transfer was completed. We will also update the public register, as described in the Trading Regulations, to ensure that the new licence holdings are reflected.

5 See section 4 for further information about the public register.
Emergency services

3.33 Ofcom explained in the Spectrum Trading statement published in August 2004 that spectrum assigned for use by the emergency services would not be made tradable before 2006. However, in addition to this spectrum assigned specifically for use by the emergency services, frequency bands in other parts of the spectrum are also used by the emergency services. This includes spectrum in Business Radio and Fixed Links classes being made tradable in 2004.

3.34 Ofcom has not included any provision in the regulations to explicitly exclude trading by the emergency services in these licence classes. However, Ofcom considers that we have a responsibility to ensure that the current and future operational effectiveness of the emergency services is not jeopardised by the introduction of trading.

3.35 As a result Ofcom will carefully review any transfer of spectrum held by the emergency services to ensure that it does not degrade the ability of the emergency services as a whole from fulfilling their duties. Ofcom may from time to time seek guidance from the Public Safety Spectrum Policy Group (PSSPG).

3.36 Ofcom may publish further guidance on this issue shortly. In particular, we will seek to clarify the types of emergency service organisation that would be subject to such review should they wish to engage in spectrum trading. Ofcom intends to consult with the PSSPG prior to issuing this guidance.
General effect of the proposed Register Regulations

The legislative framework

4.1 Under section 170(1) of the Communications Act 2003 Ofcom may, by regulations, make provision for the establishment and maintenance of a wireless telegraphy register. Under section 170(2) of that Act Ofcom may only include relevant information in the register if it is information of a description prescribed by regulations. These Regulations provide that Ofcom shall establish and maintain a register of relevant information and prescribe the relevant information.

4.2 A draft of the proposed regulations is set out at Annex 4. This draft takes account of comments received following publication in August 2004 of the statement on spectrum trading which contained a preliminary draft of the regulations.

4.3 The regulations will not extend to the Channel Islands or the Isle of Man (as explained in 3.4 above).

4.4 The register will provide basic information about licensees such as names, contact details, class of licence, the band(s) of frequencies and, where appropriate, the geographical area of operation. It will not provide precise details about individual transmitters due to security concerns. Information will be limited only to the classes that will become tradable in 2004.

4.5 Ofcom would like to move towards providing more information over the next two years, by widening the information to other classes and by adding greater detail to specific licence classes. Any changes will need to be reflected in amendments to these regulations and any such amendments will be made following a consultation exercise.

4.6 Table 1 provides an indication of the data fields and specific information that Ofcom intends to publish in the Register of Licences.

Table 1: Register of Licences

<table>
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<tr>
<th>Data field</th>
<th>Description</th>
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<tbody>
<tr>
<td>Name of licensee</td>
<td>Name of the individual or enterprise holding the licence (as notified to Ofcom)</td>
</tr>
<tr>
<td>Contact details</td>
<td>Contact postal address, Email addresses, or Telephone numbers or Agent’s contact details</td>
</tr>
<tr>
<td>Licence Class</td>
<td>Description of the licence class in use by the licensee</td>
</tr>
<tr>
<td>Frequency boundaries of right</td>
<td>The radio frequency range of the assignment specified either in terms of a central frequency with channel width, e.g.</td>
</tr>
</tbody>
</table>
415.25MHz, 100kHz, or a frequency range, e.g. 415.15 to 415.35MHz

| Geographical Information | Description of the geographical characteristics of the right, for example the authorised operational area (e.g. UK national) |

4.7 In order to address security concerns raised in relation to the point to point fixed links class, information on the geographic location of fixed links will not be published on the Register, at least during the first year of trading. Ofcom will however operate a helpline facility through which it will be possible to obtain appropriate and relevant geographic information to facilitate trading in fixed links. In due course it is anticipated that this will be replaced by a search tool on the Register.

4.8 Ofcom will keep this situation under review and will continue to consider what information to make available on the Register.

4.9 The register will not change the current position with regard to who holds a licence. Ofcom will take reasonable steps to ensure that the Register is accurate and is kept up-to-date. However, there is a balance to be struck between creating a register quickly to facilitate trading and undertaking extensive checks on the accuracy of the information currently held by Ofcom. This is particularly the case in relation to those classes of licences where there are numerous licensees and Ofcom exercises a light regulatory touch. Those considering trades should use the Register as a guide to basic information but should not rely on the Register without undertaking further checks. A ‘health warning’ will be included on the Register to make this clear.

4.10 When revoking licences Ofcom does not ordinarily consult (and is not legally obliged to consult) anyone other than the licensee. For example, where Ofcom has issued a statutory notice proposing revocation for non payment of licence fees or for breach of a licence condition, this will not be a matter of public record6. Ofcom has decided not to change this position and revocation notices will therefore not be included on the Register of Licences.

4.11 Similarly, Ofcom will not include on public registers any information about whether licensees are acting in breach of licence terms or have paid all licence fees at the time when they were due.

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6 Such notices permit the licensee to remedy the non payment or licence breach within a certain time period.
Section 5

Regulatory Impact Assessment - Trading Regulations

5.1 The analysis presented in this section of this document, when read in conjunction with the rest of this document, represents a Regulatory Impact Assessment (RIA), as defined by section 7 of the Communications Act 2003. You should send any comments on this RIA to us by the closing date for this consultation. We will consider all comments before deciding whether to implement our proposals.

5.2 RIAs provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making and are commonly used by other regulators. This is reflected in section 7 of the Act, which means that generally we have to carry out RIAs where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom’s activities. In accordance with section 7 of the Act, in producing the RIA in this document Ofcom has had regard to such general guidance as it considers appropriate, including related Cabinet Office guidance.

Proposal, purpose and intended effect

5.3 Ofcom is proposing to introduce a secondary market for rights of use to the radio spectrum, i.e. to enable the transfer of rights and associated obligations from holders of spectrum licences to third parties. This proposal applies to the licences classes as described in section 3 above and to the whole of the United Kingdom.

5.4 The intended effect of this proposal is to enable spectrum to migrate to the users that value it the most. It should also lower the barriers to acquiring spectrum and promote innovation and new services. This will help Ofcom to achieve one of its key duties: to ensure the optimal use of the radio spectrum in order to further the interests of citizens and consumers in the UK.

5.5 There are two alternative courses of action Ofcom could have followed in considering whether to bring forward regulations to introduce spectrum trading:

- Alternative 1: not to introduce spectrum trading at all, but to rely on other market mechanisms to optimise the use of the radio spectrum;
- Alternative 2: to introduce spectrum trading in all licence classes immediately, except where not permitted by international constraints.

Risk assessment

7 These are the licence classes where there are no significant spectrum management issues awaiting resolution, free from international constraints, and unhindered by practical limitations to the immediate introduction of spectrum trading.
5.6 Ofcom carried out a risk assessment of the introduction of spectrum trading in the consultation on spectrum trading published in November 2003. A few respondents commented on the risk assessment, mainly focusing on the risks from interference due to liberalisation. This document deals only with spectrum trading, i.e. the transfer of rights to use spectrum. Change of use and liberalisation issues are dealt with in the Spectrum Liberalisation Consultation published on 17 September 2004. Having reviewed the initial risk assessment Ofcom’s final view of the risks associated with spectrum trading are summarised below.

The risks of inaction - Alternative 1

5.7 The main risk of not introducing spectrum trading is that the potential economic benefits associated with it would be foregone. Ofcom believes that while auctions and administrative incentive pricing are alternative mechanisms for optimising the use of radio spectrum, they are complementary to spectrum trading. Ofcom also believes that greater improvements in efficiency can be gained from using all three mechanisms than by using a subset of them.

Risks common to Ofcom’s proposals and Alternative 2

5.8 The risks of introducing trading that are common to Ofcom’s proposals and Alternative 2 are summarised below together with the actions Ofcom could take to mitigate these risks:

- lack of trading activity - making as large a pool of spectrum available as possible to aid liquidity and publishing information to facilitate trading in a register should create a favourable environment for trading;
- anti-competitive action - Ofcom’s consultation process on trading has identified that existing competition policy tools should be sufficient to address anti-competitive behaviour;
- inefficient use of spectrum - the market should be best at allocating resources and Ofcom would have powers to counter fragmentation as a last resort;
- risks to safety of life services - protection of safety of life services would be paramount in Ofcom granting approval to trading in these sectors and in any interference investigations.

Risks of introducing spectrum trading immediately across the board - Alternative 2

5.9 The main difference between Alternative 2 and Ofcom’s proposals is that spectrum trading would be introduced in licence classes where major decisions affecting the future use or planning of the spectrum have not been taken, such as planning for digital switchover in television broadcasting. This would run the following additional risks:

- there is an amplified risk that there will be little trading activity because it will be more difficult for users and potential users to predict the expected value of the spectrum;
- if trades do take place based on erroneous predictions about spectrum planning etc., substantial investments may be made which are ultimately wasted.
Conclusion

5.10 The risk assessment shows that there are significant risks that substantial economic benefits could be given up by not introducing spectrum trading. There are also risks in introducing spectrum trading but Ofcom can take a number of actions to mitigate these risks. However, introducing spectrum trading immediately across all licence classes would create additional risks in licence classes where significant spectrum management issues are in the process of being resolved.

Equity and fairness

5.11 Ofcom has considered the fairness of its proposals and is confident that they are fair to users of spectrum, businesses and consumers. Firstly the introduction of spectrum trading will not force any existing user of spectrum to take any action. Spectrum trading will be an entirely voluntary activity. It will only take place where both parties benefit from the trade, therefore no user should be at a disadvantage because of it.

5.12 Secondly, Ofcom has carefully reviewed the potential of spectrum trading to distort competition, as it is required under European legislation. Ofcom has consulted on this issue both in the original consultation on spectrum trading and a specific consultation on competition. As a result of the consultation process, Ofcom believes that it will be sufficient to rely on existing legislation to prevent distortions of competition following the introduction of spectrum trading. Ofcom will keep this issue under review in the light of experience gained from the roll-out of trading and liberalisation.

5.13 Thirdly, Ofcom believes that spectrum trading will open access to spectrum to a wider range of potential users. In time it should help address the problem of bandwidth scarcity in certain parts of the radio frequency spectrum, increasing competition and, for example, help to reduce any inequity from spectrum allocated on a first come first served basis.

Benefits

Identification of Benefits

5.14 In summary, the benefits of spectrum trading identified in the Consultation on Spectrum Trading were that exposing users to the opportunity cost of holding spectrum would create incentives for the spectrum to move to the users which valued spectrum most. Thus spectrum would be used more efficiently and the economic value generated by using spectrum would increase as a result. Competition would also be expected to increase because spectrum trading would lower barriers to accessing spectrum. Consumers would benefit from competition through lower prices and increased choice. The Consultation also looked at successful examples of spectrum trading in other countries as practical evidence to support its presumption.

5.15 Respondents to the consultation did not dispute the benefits identified in the consultation and Ofcom holds to the view that spectrum trading will deliver substantial benefits to the UK.
Quantification of benefits

5.16 A conservative approach to quantifying benefits was taken in the Spectrum Trading Consultation. The direct benefits from trading were estimated, but indirect effects such as the impact of increased competition and innovation were not. Moreover, a deliberately pessimistic view was taken in estimating the direct benefits of trading. The direct benefit from a simple transfer of rights is equal to the difference in value to the buyer and seller. The analysis assumed that difference (in percentage terms) between the buyer’s and seller’s valuation was the minimum necessary for trading to take place\(^8\). In practice, the difference in valuations could lie well above this minimum.

5.17 The methodology used to estimate the direct benefits of trading were as follows:

- the volume of trades over time was based on international experience;
- the value of the spectrum was based on the AIP or the standard licence fee where AIP was not charged;
- the forward looking estimate of the benefits was kept consistent with the timeline presented in the Consultation for when licences classes would become tradable;
- the difference in value of the spectrum between the seller and the buyer was taken at the minimum of 25% according to the Myerson Satterthwaite result.

5.18 The main focus of the comments received on this analysis was that it would be more accurate to assess the annual percentage of spectrum traded on a class by class basis, rather than assume an equal proportion across all classes.

5.19 In addition, Analysys, DotEcon and Hogan & Hartson have done further work in this area which Ofcom has reviewed. Analysys et al. produced a report for the European Commission on conditions and options in introducing secondary trading of radio spectrum in the European Community\(^9\). Their analysis attempted to estimate the direct and indirect benefits of spectrum trading and liberalisation. Their overall conclusions were in line with those of the assessment in the Spectrum Trading Consultation\(^10\).

5.20 Ofcom has taken on board these two pieces of work. A revised version of the estimate of the direct benefits of trading is presented below, where the proportion of spectrum traded per year varies by licence class. An estimate of the potential benefit from competition that could arise from spectrum trading is also presented.

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\(^8\) The Myerson Satterthwaite result shows that when there is incomplete information, (i.e. buyers and sellers in a trade do not know each other's true valuations), there has to be a difference in valuations of at least 25% for a trade to take place - Myerson, Roger B.; Satterthwaite, Mark A. 1983. “Efficient Mechanisms in Bilateral Trading”, Journal of Economic Theory 29 (April): 265-81

\(^9\) [http://europa.eu.int/information_society/topics/radio_spectrum/useful_info/studies/secondtrad_study/index_en.htm](http://europa.eu.int/information_society/topics/radio_spectrum/useful_info/studies/secondtrad_study/index_en.htm)

\(^10\) Analysys et al. found that the benefits of spectrum trading and liberalisation together were nine times that of spectrum trading alone, therefore the benefits they estimated are significantly higher than those estimated here.
Revised analysis of the direct benefits of trading

5.21 The table below presents a revised analysis of the direct benefits from spectrum trading. It only considers the benefits of a transfer of rights to use spectrum. Liberalisation or change of use is being dealt with in parallel, but separate to spectrum trading. As a result the benefits of liberalisation have been assessed in the consultation on Spectrum Liberalisation published 17 September 2004.

5.22 The main difference between this analysis and that presented in the consultation on spectrum trading is in the assumed volume of licences traded each year. Instead of an across the board\textsuperscript{11} estimate of 8\% (based on trading volumes in Australia), the volume of trading varies by licence class. In the new calculation, we have assumed that the volume of trading varies roughly with the number of licensees and or licence assignments. The volume of trading is assumed to be 2\%, 4\% or 8\% depending largely on whether there are very few, a few or many licensees in the licence class. Clearly the actual determinants of the volume of trading are much more complex than this, but we feel this assumption is adequate for the purposes of analysing the net costs and benefits of introducing spectrum trading.

Benefits of trading - no change of use

<table>
<thead>
<tr>
<th>Licence class</th>
<th>Start date of trading</th>
<th>Number of licences</th>
<th>Number of licences traded per year</th>
<th>Average licence value</th>
<th>Benefits (£000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National and regional PBR</td>
<td>2004</td>
<td>69</td>
<td>8.0%</td>
<td>25,800</td>
<td>36</td>
</tr>
<tr>
<td>Common base stations</td>
<td>2004</td>
<td>350</td>
<td>8.0%</td>
<td>2,250</td>
<td>16</td>
</tr>
<tr>
<td>On-site PBR</td>
<td>2005</td>
<td>26,000</td>
<td>8.0%</td>
<td>550</td>
<td>286</td>
</tr>
<tr>
<td>Wide area PBR</td>
<td>2005</td>
<td>13,361</td>
<td>8.0%</td>
<td>3,796</td>
<td>1,014</td>
</tr>
<tr>
<td>GSM</td>
<td>2007</td>
<td>4</td>
<td>2.0%</td>
<td>84,500,000</td>
<td>1,690</td>
</tr>
<tr>
<td>PAMR analogue</td>
<td>2004</td>
<td>5</td>
<td>2.0%</td>
<td>9,450</td>
<td>0.2</td>
</tr>
<tr>
<td>National paging</td>
<td>2004</td>
<td>5</td>
<td>2.0%</td>
<td>9,450</td>
<td>0.2</td>
</tr>
<tr>
<td>Public data networks</td>
<td>2004</td>
<td>6</td>
<td>4.0%</td>
<td>9,450</td>
<td>0.6</td>
</tr>
<tr>
<td>3.4 GHZ FWA</td>
<td>2004</td>
<td>15</td>
<td>4.0%</td>
<td>463,667</td>
<td>70</td>
</tr>
<tr>
<td>28GHz FWA</td>
<td>2004</td>
<td>15</td>
<td>4.0%</td>
<td>2,534,000</td>
<td>380</td>
</tr>
<tr>
<td>Remote meter reading</td>
<td>2004</td>
<td>3</td>
<td>2.0%</td>
<td>56,000</td>
<td>0.8</td>
</tr>
<tr>
<td>Point to point fixed links &lt;13GHz</td>
<td>2004</td>
<td>2,105</td>
<td>1.6%</td>
<td>48,067</td>
<td>405</td>
</tr>
<tr>
<td>Point to point fixed links 13-23 GHz</td>
<td>2004</td>
<td>10,783</td>
<td>1.6%</td>
<td>16,007</td>
<td>690</td>
</tr>
<tr>
<td>Point to multipoint fixed links</td>
<td>2004</td>
<td>54</td>
<td>4.0%</td>
<td>1,960</td>
<td>1.1</td>
</tr>
<tr>
<td>Scanning telemetry</td>
<td>2004</td>
<td>66</td>
<td>4.0%</td>
<td>15,840</td>
<td>10</td>
</tr>
</tbody>
</table>

\textsuperscript{11} For fixed links the volume of trading was assumed to be much lower. Trading in fixed links is expected to be different from other classes because, except on routes between major areas of telecommunications demand, it is unlikely that demand for fixed links will coincide sufficiently for much trading to occur. The assumed volume of trades for fixed links is assumed to be the same in the present analysis.
5.23 The annual benefit from spectrum trading, if it were introduced in all classes at once, would be nearly £7 million. Introducing spectrum trading according to the timetable in the table above would generate a total benefit of over 20 years of £77 million in net present value (NPV) terms. If the assumed volume of trading were only half that shown in the table above, the net present value of the benefits would fall to £39 million.

Estimate of the benefits from increased competition

5.24 Analysys, DotEcon and Hogan & Hartson estimate that benefits due to the additional competition that would result from spectrum trading on its own would be roughly equal to the direct benefits of spectrum trading. This would increase the NPV of the benefits to £154 million.

Other benefits

5.25 Analysys, DotEcon and Hogan & Hartson concluded that there are powerful synergies between trading and liberalisation and estimated that benefits from both are over 9 times the benefits from trading alone.

Business sectors affected

5.26 The business sectors affected by the introduction of spectrum trading break down into two classes. Firstly, those for whom spectrum is essential to offering the end-user service: mainly telecommunications and multimedia service providers, and broadcasters. Secondly, those for which spectrum is a non-essential, though valuable input to providing their end-user service:

- telecommunications and broadcasting equipment suppliers
- transport and logistics
- aviation
- shipping
- local government
- public safety services
- utilities including gas, water and electricity
- entertainment.

Costs to business

5.27 Since no user will have to take any action as a result of these proposals, no additional costs need be imposed on business as a result of spectrum trading. Those users and business which do decide to trade spectrum will only do so if the benefits of trading outweigh the transaction costs, therefore costs incurred in completing a trade will always be offset by the benefits.

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12 The net present value measures the value today of the future stream of benefits from spectrum trading with trading introduced in each class according to the start dates shown above. A time horizon of 20 years and a discount rate of 5.5% have been used.
5.28 Ofcom is not charging an administration fee for whole or partial transfers under spectrum trading, though businesses will be required to notify Ofcom before a transfer is made and on completion of the trade. However, Ofcom is proposing low cost methods of notification, e.g. by electronic means, in order to minimise the costs of the notification process.

Other costs

5.29 The revised analysis of the costs of introducing and administering spectrum trading are summarised in this section. As in the previous RIA for the consultation on spectrum trading, the costs can be broken down into two classes:

- implementation costs relating to development of IT systems, updating licence records and implementation;
- annually incurred administration costs associated with trading.

5.30 The main difference between the revised analysis and that which accompanied the previous consultation on spectrum trading lies in the assumed volume of trading. This is consistent with the volumes assumed in the revised benefits estimate, as outlined above.

5.31 Implementation costs have been amended in a few instances where new or more detailed information on implementation costs has been available. The new estimate for set up costs at £2.8 million is marginally lower than before. Actual and planned levels of personnel required for implementation have turned out to be less than previously predicted.

5.32 The ongoing administrative costs are summarised below. If spectrum trading were introduced in all classes at once, the annual administrative costs would add up to £0.3 million.

Ongoing administrative costs of spectrum trading by licence class

<table>
<thead>
<tr>
<th>Licence class</th>
<th>Average yearly volume of trades</th>
<th>Administration cost (£000s per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National and regional PBR</td>
<td>5.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Common base stations</td>
<td>28.0</td>
<td>2.7</td>
</tr>
<tr>
<td>On-site PBR</td>
<td>2,080</td>
<td>200.5</td>
</tr>
<tr>
<td>Wide area PBR</td>
<td>1,069</td>
<td>103.1</td>
</tr>
<tr>
<td>GSM</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>PAMR analogue</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>National paging</td>
<td>0.1</td>
<td>0.01</td>
</tr>
<tr>
<td>Public data networks</td>
<td>0.2</td>
<td>0.6</td>
</tr>
<tr>
<td>3.4 GHZ FWA</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>28GHz FWA</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Remote meter reading</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Point to point fixed links &lt;13GHz</td>
<td>34</td>
<td>1.6</td>
</tr>
<tr>
<td>Point to point fixed links 13-23 GHz</td>
<td>173</td>
<td>8.3</td>
</tr>
<tr>
<td>Point to multipoint fixed links</td>
<td>2.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Scanning telemetry</td>
<td>2.6</td>
<td>0.1</td>
</tr>
<tr>
<td>Broadcasting</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>321</strong></td>
</tr>
</tbody>
</table>
5.33 The table below summarises the costs of introducing spectrum trading both to business and to Ofcom and presents them in net present value form. It takes the estimate of the implementation costs (as described above) and then projects forward, over a 20 year time horizon, the annual administration costs according to when trading is introduced in each licence class. The total costs to Ofcom are calculated as the net present value of the administrative costs plus the implementation costs. As in the previous RIA for spectrum trading, it is assumed that the costs to business are 5% of the total benefits. These costs are added to the costs to Ofcom to derive the total costs of spectrum trading in net present value terms.

<table>
<thead>
<tr>
<th>Total Ofcom and business costs of spectrum trading.</th>
<th>Base case, £ millions</th>
<th>Half trading volumes, £ millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPV administrative costs (20 years)</td>
<td>3.22</td>
<td>1.54</td>
</tr>
<tr>
<td>Implementation costs</td>
<td>2.76</td>
<td>2.76</td>
</tr>
<tr>
<td>NPV Ofcom costs over 20 years</td>
<td>5.98</td>
<td>4.30</td>
</tr>
<tr>
<td>NPV costs to business (20 years)</td>
<td>3.85</td>
<td>1.93</td>
</tr>
<tr>
<td>NPV total costs (20 years)</td>
<td>9.83</td>
<td>6.23</td>
</tr>
</tbody>
</table>

Net economic benefit and conclusions

5.34 Ofcom’s revised analysis of the economic costs and benefits of introducing spectrum trading shows that the benefits will substantially exceed the costs and endorses the findings of the previous regulatory impact assessment. The net economic benefits range from £67 million to £144 million if the impact of greater competition is taken into account.

5.35 Even if the volume of spectrum trading is only half that assumed in these estimates, the basic conclusion is unchanged, that the benefits of spectrum trading exceed the costs. In this case, the net economic benefits range from £33 million to £72 million if the impact of greater competition is taken into account.

Monitoring and compliance

5.36 Ofcom will monitor the success of spectrum trading in a number of ways. These include:

- **Volume of licences traded.** Ofcom will record the percentage of licences and spectrum that are traded as a proportion of the volume that are permitted to trade.
- **Maturity of spectrum markets.** Ofcom will monitor the emergence of intermediaries, including market makers, and technical consultants devoted to trading. The emergence of these kinds of organisation are one indication of a vibrant and efficient spectrum market.
- **Evidence of value-enhancing trades.** Ofcom anticipates that a successful spectrum market will generate clear examples of value-enhancing trades; for example partitioning of a national licence into smaller ones in order to better address customer needs, where markets are very local in nature.
Section 6

Regulatory Impact Assessment - Register Regulations

6.1 The analysis presented in this section of this document, when read in conjunction with the rest of this document, represents a Regulatory Impact Assessment (RIA), as defined by section 7 of the Communications Act 2003. You should send any comments on this RIA to us by the closing date for this consultation. We will consider all comments before deciding whether to implement our proposals.

6.2 RIAs provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making and are commonly used by other regulators. This is reflected in section 7 of the Act, which means that generally we have to carry out RIAs where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. In accordance with section 7 of the Act, in producing the RIA in this document Ofcom has had regard to such general guidance as it considers appropriate, including related Cabinet Office guidance.

6.3 Ofcom is proposing to introduce a secondary market for rights of use to the radio spectrum, i.e. to enable the transfer of rights and associated obligations from holders of spectrum licences to third parties. These proposals are covered by the Trading Regulations, and a separate regulatory impact assessment has been carried out for them. In order to enhance the development of a secondary market for the right to use spectrum, Ofcom is also proposing to establish and maintain a register about spectrum trades and licences. This is the subject of this regulatory impact assessment.

Proposal, purpose and intended effect

6.4 This proposal applies to the licences classes as described in section 4 above13 and to the whole of the United Kingdom.

6.5 The intended effect of this proposal is to facilitate spectrum trading by:

- except where security considerations prevent publication of information, providing information about existing licences which will enable potential buyers to find out what spectrum is available, the constraints on the use of the specific frequencies or bands and who holds what frequencies;
- providing basic information about proposed and completed transfers to facilitate the transparency of secondary trading.

6.6 This Regulatory Impact Assessment focuses on the above proposal and on the alternative of not establishing a wireless telegraphy register, i.e. carrying on the status quo, but in the changed context of having introduced spectrum trading. The assessment is linked to the Regulatory Impact Assessment for

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13 These are the licence classes where there are no significant spectrum management issues awaiting resolution, free from international constraints, and unhindered by practical limitations to the immediate introduction of spectrum trading
the Trading Regulations, which concludes that the benefits of trading outweigh the costs.

**Risk assessment**

**The risks of establishing a wireless telegraphy register**

6.7 The risks of establishing a register of licences and trades are two-fold. Firstly, there is a risk that the security of wireless telegraphy systems is compromised if too much is known about their operation. Ofcom is mitigating this risk by publishing only basic information about licensees and by specifically not publishing precise details about transmitters.

6.8 The second risk is that publishing commercially sensitive information about planned and actual trades could create disincentives to trading. Ofcom will mitigate this risk by publishing only basic details about the licence being traded and the identity of the parties to the trade. Ofcom will not publish commercially sensitive information such as transaction prices.

**The risks of not establishing a wireless telegraphy register**

6.9 Were Ofcom not to establish a register, the effectiveness of spectrum trading may be limited by the lack of availability of information on the availability and rights to use spectrum and a lack of transparency in the functioning of the spectrum trading market. This could increase the cost of searching for information thereby increasing transaction costs, which could prevent some trades from going ahead. Moreover the lack of information may directly cause some trades not to go ahead because potential traders are not fully aware of the opportunities to trade.

6.10 This risk may be mitigated to the extent that commercial organisations may be able to compile and offer for sale information relating to spectrum trading. However, commercial organisations are unlikely to be able to gather information as comprehensively as Ofcom, and it would take time for them to be able to begin providing such services.

**Conclusion**

6.11 The risk assessment shows that all major risks associated with establishing a register can safely be mitigated by Ofcom. On the other hand, if a register is not established, there is a real risk that the effectiveness of spectrum trading will be damaged and this is unlikely to be wholly mitigated by commercial information providers.

**Equity and fairness**

6.12 Ofcom has considered the fairness of its proposals and is confident that they are fair to users of spectrum, businesses and consumers. Ofcom is not proposing to publish any information which would compromise the security or commercial standing of either licensees or parties to a spectrum trade. Neither is any one type of user being treated differently from another under these regulations.
**Benefits**

**Identification of Benefits**

6.13 The major benefits of establishing a wireless telegraphy register, in conjunction with introducing spectrum trading, are that:

- transaction costs of spectrum trades are lower - since the relevant information on the rights and obligations of frequencies that can be traded is available;
- potential users of spectrum are fully aware of the opportunities for trading;
- gaps in spectrum usage are more transparent, facilitating access to spectrum for innovative uses;
- greater transparency engenders greater confidence in the trading process;
- transmitter and receiver manufacturers can evaluate and monitor the size of their markets more accurately.

6.14 Establishing the Register will help ensure that the maximum benefit from spectrum trading - creating incentives for spectrum to move to the users which value spectrum most - is achieved. In addition, Ofcom is proposing to publish the UK frequency allocation plan (UKFAP) which will give details of regulatory constraints on spectrum and further increase the effectiveness of spectrum trading.

**Quantification of benefits**

6.15 The benefits of establishing the Register are difficult to quantify. They depend largely on the impact of limited information on the functioning of the spectrum market, and there is no empirical evidence on which a reliable evaluation of the impact of a register can be based.

6.16 It should be noted however, that Ofcom’s central estimate of the benefit from spectrum trading according to the timetable proposed in the statement on spectrum trading would be £77 million in net present value\(^\text{14}\) (NPV) terms. This would double to £154 million if the benefits of competition were taken into account.

**Business sectors affected**

6.17 The business sectors affected by establishing the wireless telegraphy register break down into two classes. Firstly, those for whom spectrum is essential to offering the end-user service: mainly telecommunications and multimedia service providers, and broadcasters. Secondly, those for which spectrum is a non-essential, though valuable input to providing their end-user service:

- telecommunications and broadcasting equipment suppliers
- transport and logistics
- aviation
- shipping

\(^{14}\) The net present value measures the value today of the future stream of benefits from spectrum trading with trading introduced in each class according to the start dates shown above. A time horizon of 20 years and a discount rate of 5.5% have been used.
• local government
• public safety services
• utilities including gas, water and electricity
• entertainment.

Costs to business

6.18 Businesses may incur some additional costs in providing information for a Spectrum Register, but Ofcom has taken care to mandate only the minimum necessary level of information required to provide a favourable environment for spectrum trading. Moreover, much of the information on existing licensees is already available to Ofcom and this will minimise costs.

6.19 In order for Ofcom to publish information on trades, businesses will be required to notify Ofcom before a transfer is made and on completion of the trade. However, Ofcom is proposing low cost methods of notification, e.g. by electronic means, in order to minimise the costs of the notification process.

Other costs

6.20 Many of the costs to Ofcom of setting up and maintaining the Register are common to other activities which Ofcom will be required to carry out in the administration of the framework for spectrum trading.

6.21 The development costs of the wireless telegraphy register are expected to be about £130,000 for the first group of tradable licences and £280,000 in total. Most of the ongoing costs would be incurred anyway in the operation of spectrum trading. These costs are small in relation to the set-up costs of spectrum trading which are estimated at £2.8 million. They are also negligible compared with the overall benefits of spectrum trading, which, even on a conservative estimate, are nearly £7 million per annum.

Conclusions

6.22 There are significant benefits from establishing a wireless telegraphy register. Though they are difficult to quantify, Ofcom believes that these benefits are likely to exceed the costs of establishing a register. Moreover, if Ofcom were not to establish a register, the effectiveness of trading may be damaged with repercussions for economic efficiency.

Monitoring and compliance

6.23 Ofcom will monitor the success of spectrum trading as a whole and the Register will be a part of this. Ofcom will measure:

• **Volume of licences traded.** Ofcom will record the percentage of licences and spectrum that are traded as a proportion of the volume that are permitted to trade.

• **Maturity of spectrum markets.** Ofcom will monitor the emergence of intermediaries, including market makers, and technical consultants devoted to trading. The emergence of these kinds of organisation are one indication of a vibrant and efficient spectrum market.

• **Evidence of value-enhancing trades.** Ofcom anticipates that a successful spectrum market will generate clear examples of value-
enhancing trades; for example partitioning of a national licence into smaller ones in order to better address customer needs, where markets are very local in nature.
Section 7

Responding to this consultation

How to respond

Ofcom invites written views and comments on the draft regulations attached to this document, to be made by 5pm on Monday 1 November 2004.

Ofcom strongly prefers to receive responses as e-mail attachments, in Microsoft Word format, 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 2), among other things to indicate whether or not there are confidentiality issues. The cover sheet can be downloaded from the ‘Consultations’ section of our website.

Please can you send your response to chris.woolford@ofcom.org.uk.

Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.

Chris Woolford
Competition and Markets
4th Floor
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA

Fax: 020 7783 4103

Note that we do not need a hard copy in addition to an electronic version. Also note that Ofcom will not routinely acknowledge receipt of responses.

Further information

If you wish to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Chris Woolford on 020 7783 4185.

Confidentiality

Ofcom thinks 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 (when respondents confirm on their response cover sheet that this is acceptable).

All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed. Please place any confidential parts of a response in a separate annex, so that non-confidential parts may be published along with the respondent’s identity.

Ofcom reserves its power to disclose certain confidential information where this is necessary to fulfil its functions, although in practice it would do so only in limited circumstances.
Next steps

Following the end of the consultation period, Ofcom intends to make the final regulations in November to enable the effective introduction of spectrum trading from December 2004.

Please note that you can register to get automatic notifications of when Ofcom documents are published, at http://www.ofcom.org.uk/static/subscribe/select_list.htm.

Ofcom's consultation processes

Ofcom is keen to make responding to consultations easy, and has published some consultation principles (see Annex 1) which it seeks to follow, including on the length of consultations.

This consultation is shorter than Ofcom's standard 10 week period because it represents a one month statutory consultation. Stakeholders have already had the opportunity to comment on an earlier draft of the regulations which were attached to the statement on spectrum trading published on 6 August 2004.

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, whose views are less likely to be obtained in a formal consultation.

If you would like to discuss these issues, or Ofcom's consultation processes more generally, you can alternatively contact Philip Rutnam, Partner, Competition and Strategic Resources, who is Ofcom's consultation champion:

Philip Rutnam
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA
Tel: 020 7981 3585
Fax: 020 7981 3333
E-mail: philip.rutnam@ofcom.org.uk
Annex 1

Ofcom’s consultation principles

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

Before the consultation

1. 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

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

3. 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 version for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

4. We will normally allow ten weeks for responses, other than on dispute resolution.

5. There will be a person within Ofcom who 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. This individual (who we call the consultation champion) will also be the main person to contact with views on the way we run our consultations.

6. If we are not able to follow one of these principles, we will explain why. This may be because a particular issue is urgent. If we need to reduce the amount of time we have set aside for a consultation, we will let those concerned know beforehand that this is a ‘red flag consultation’ which needs their urgent attention.

After the consultation

7. We will look at each response carefully and with an open mind. We will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.
Annex 2

Consultation response cover sheet

A2.1 In the interests of transparency, we will publish all consultation responses in full on our website, www.ofcom.org.uk, unless a respondent specifies that all or part of their response is confidential. We will also refer to the contents of a response when explaining our decision, unless we are asked not to.

A2.2 We have produced a cover sheet for responses (see below) and would be very grateful if you could send one with your response. This will speed up our processing of responses, and help to maintain confidentiality by allowing you to state very clearly what you don’t want to be published. We will keep your completed cover sheets confidential.

A2.3 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 confirm on the response cover sheet that Ofcom can publish their responses upon receipt.

A2.4 We strongly prefer to receive responses in the form of a Microsoft Word attachment to an email. Our website therefore includes an electronic copy of this cover sheet, which you can download from the ‘Consultations’ section of our website.

A2.5 Please put any confidential parts of your response in a separate annex to your response, so that they are clearly identified. This can include information such as your personal background and experience. If you want your name, 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

**What do you want Ofcom to keep confidential?**

- Nothing
- Whole response
- Part of the response

- Name/contact details/job title
- Organisation
- If there is no separate annex, which parts?

If you want part of your response, your name or your organisation to be confidential, 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)?

- Yes
- No

## DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on Ofcom’s website, unless otherwise specified on this cover sheet, and all intellectual property rights in the response vest with Ofcom. If I have sent my response by email, Ofcom can disregard any standard email text about not disclosing email contents and attachments.

Ofcom can publish my response: on receipt

once the consultation ends

**Name**

**Signed (if hard copy)**
Draft Spectrum Trading Regulations

STATUTORY INSTRUMENTS

2004 No. XXXX

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Spectrum Trading) Regulations 2004

Made - - - - 2004
Coming into force - - 2004

Whereas the Office of Communications (“OFCOM”) have given notice of their proposal to make these Regulations in accordance with section 403(4)(a) of the Communications Act 2003(15) (“the 2003 Act”) and published notice of their proposal in accordance with section 403(4)(b) of the 2003 Act and have considered the representations made to them before the time specified in the notice:

Now, therefore, OFCOM, in exercise of the powers conferred upon them by section 168(1) and (3) and section 403(7) of the 2003 Act hereby make the following Regulations:

Citation, commencement and extent

1. These Regulations may be cited as the Wireless Telegraphy (Spectrum Trading) Regulations 2004 and shall come into force on [ ] 2004.

2. These Regulations shall not extend to Bailiwick of Guernsey.

Interpretation

3. In these Regulations “concurrent holders” means persons who concurrently hold the rights and obligations under a wireless telegraphy licence by virtue of a transfer authorised by these regulations which has that effect.

Transfer of all of the rights and obligations arising by virtue of a wireless telegraphy licence

4.— (1) Subject to regulation 7, a transfer by the holder of a wireless telegraphy licence to which this regulation applies of all of the rights and obligations arising by virtue of that wireless telegraphy licence is authorised if it satisfies one of the two conditions set out in paragraph (2).

(2) Those conditions are —

(a) that the rights and obligations of the person making the transfer become rights and obligations of the transferee to the exclusion of the person making the transfer; and

(15) 2003 c. 21
that the transferred rights and obligations become rights and obligations of the transferee while continuing, concurrently, to be rights and obligations of the person making the transfer.

5. Regulation 4(1) shall apply to wireless telegraphy licences within the licence classes specified in Column 1 of each Part of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part.

Partial transfer of rights and obligations arising by virtue of a wireless telegraphy licence

6. Subject to 7, transfers satisfying the conditions in regulation 4(2) are also authorised where the transfer is of—

(a) all of the rights arising by virtue of a wireless telegraphy licence which relate to—

(i) whole frequency channels under one of the licences of a class specified in Column 1 of Part 1 or Column 1 of Part 6 of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part;

(ii) part frequency channels which have in each case a bandwidth of 12.5 kHz or a multiple thereof and the same start or end frequency limit as a licensed frequency channel under one of the licences of a class specified in Column 1 of Part 1 or Column 1 of Part 6 of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part;

(iii) whole wireless telegraphy links designed for use between two fixed points under one of the licences of a class specified in Column 1 of Part 5 of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of that Part;

(iv) a part of the range of frequencies under one of the licences of a class specified in Column 1 of Part 2 or Column 1 of Part 4 of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part;

(v) a geographical area being part of the total geographical area in which the holder is authorised to establish, install and use radio transmitting and receiving stations or apparatus under one of the licences specified in Column 1 of Part 2 or Column 1 of Part 4 of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part; or

(vi) both of the situations set out in sub-paragraphs (a)(iv) and (v); and

(b) the corresponding part of each of the obligations under the licence.

Circumstances in which a transfer is not authorised

7.—(1) A transfer of rights and obligations arising under a wireless telegraphy licence is not authorised where—

(a) any of the licence holder, or all of the concurrent holders, and the transferee have not consented to the transfer;

(b) any sum payable under the Wireless Telegraphy (Licence Charges) Regulations 2002\(^{16}\) in respect of that licence is owing to OFCOM because it has not been paid by the time it became due;

(c) any instalment payment is to be paid to OFCOM under regulation 4(8)(b) of the Wireless Telegraphy (Licence Charges) Regulations 2002 in respect of that licence;

(d) OFCOM has served notice under section 1E(1) of the Wireless Telegraphy Act 1949\(^{17}\) on the holder, or the concurrent holders, of that licence of a proposal to revoke or vary that licence but that revocation or variation has not yet been made;


\(^{17}\) 1949 c. 54
(e) the holder has, or all of the concurrent holders have, requested OFCOM to revoke or vary the licence or have consented to a revocation or variation proposed by OFCOM but that revocation or variation has not yet been made; or where

(f) OFCOM has not given their consent to the transfer being made.

**Transfer procedure**

8. — (1) The holder, or concurrent holders, of a wireless telegraphy licence who wishes, or who wish, to make a transfer authorised by regulations 4(1) or 6 must provide to OFCOM –

(a) the reference number of the wireless telegraphy licence under which rights and obligations are to be transferred;
(b) the name and address of the holder or concurrent holders of the wireless telegraphy licence;
(c) the name and address of the proposed transferee;
(d) a description of which type of transfer authorised by regulation 4(1) or regulation 6 is proposed;
(e) a document signed by or on behalf of the holder, or each concurrent holder, of the licence and signed by or on behalf of the transferee, under which each of those persons warrants to OFCOM that they have consented to the proposed transfer;
(f) all information necessary for OFCOM to determine whether or not they shall consent to the trade; and
(g) in the case of a transfer authorised by regulation 6, a description of which rights and obligations under the licence are to be transferred.

(2) OFCOM shall, after determining that the requirements of paragraph (1) have been met, publish a notice stating:

(a) the name of the wireless telegraphy licence holder or concurrent holders and the name of the transferee to whom it is proposed that the rights and obligations arising under the licence shall be transferred;
(b) the date when OFCOM determined that the requirements of paragraph (1) were met;
(c) the licence class and the reference number of the wireless telegraphy licence under which rights and obligations are to be transferred; and
(d) in the case of a transfer authorised by regulation 6, a description of which rights under the licence are proposed to be transferred.

(3) After publishing a notice under paragraph (2) OFCOM shall decide –

(a) if they consent to the transfer in accordance with regulation 9; and
(b) if they shall give any directions under regulation 10.

(4) OFCOM shall notify the parties to the proposed transfer of their decisions under paragraph (3).

(5) A transfer shall be effected by the holder or concurrent holders of the wireless telegraphy licence under which rights and obligations are to be transferred surrendering that licence and by OFCOM granting a new one to the transferee and –

(a) in the case of a transfer authorised by regulation 6, to the holder or concurrent holders who made the transfer; and
(b) in the case of a transfer which satisfies the condition in regulation 4(2)(b), to the holder or concurrent holders who made the transfer.

(6) OFCOM shall publish the information specified in paragraph (2) in relation to transfers that have been effected pursuant to paragraph (5).
Consent by OFCOM

9. In determining whether or not to consent to a proposed transfer OFCOM shall take into account whether—

(a) the holder is, or the concurrent holders are, in breach of the terms of the wireless telegraphy licence under which the rights and obligations are to be transferred;

(b) the transferee is able to meet the terms, provisions and limitations of the wireless telegraphy licence which is to be granted as a result of the transfer;

(c) in the case of a transfer authorised by regulation 6 the transferor is able to meet the terms, provisions and limitations of the wireless telegraphy licence which is to be granted as a result of the transfer;

(d) the transferee is able to meet any criteria relating to the persons to whom a wireless telegraphy licence of the class under which rights and obligations are to be transferred may be granted; and

(e) it is requisite or expedient to refuse consent to the transfer—

(i) in the interests of national security;

(ii) for the purposes of complying with a Community obligation of the United Kingdom or with any international agreement or arrangements to which the United Kingdom is party; or

(iii) for the purposes of complying with a direction by the Secretary of State given to OFCOM under section 5 or section 156 of the Communications Act 2003.

Directions by OFCOM

10.—(1) If OFCOM consents to a transfer they may also direct that a transfer shall only be put into effect in accordance with regulation 8(5) after compliance with conditions which may relate to any matter mentioned in any of the sub-paragraphs of regulation 9.

(2) A proposed transfer may not be put into effect in accordance with regulation 8(5) until after compliance with the conditions of any such direction.

Name

Date For and by authority of the Office of Communications
<table>
<thead>
<tr>
<th>Licence classes</th>
<th>Frequency bands</th>
</tr>
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<tbody>
<tr>
<td>Public Mobile Operator for Public Wide-Area Paging</td>
<td>55.75 – 87.50 MHz</td>
</tr>
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<td>Public Mobile Operator for Public Mobile Data, Non-Voice Only Operation</td>
<td>136 – 208 MHz</td>
</tr>
<tr>
<td>Public Mobile Operator for Public Access Mobile Radio</td>
<td>450 – 470 MHz</td>
</tr>
<tr>
<td>Public Mobile Operator for CDMA Spread Spectrum Data/Asset Tracking Systems</td>
<td>133 – 134 kHz</td>
</tr>
<tr>
<td>National and Regional Private Business Radio</td>
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<td>Common Base Station Operator</td>
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<td>3480 – 3600 MHz</td>
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<thead>
<tr>
<th>Licence class</th>
<th>Frequency bands</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>29.0605 – 29.4525 GHz</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Licence class</th>
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</tr>
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<tbody>
<tr>
<td>Point to Point Fixed Links</td>
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<td>1672 – 1690 MHz</td>
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<tbody>
<tr>
<td>Scanning Telemetry</td>
<td>457.5 – 464 MHz</td>
</tr>
</tbody>
</table>
EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations are made under section 168(1) and (3) of the Communications Act 2003. Section 168 implements Article 9(3) and (4) of the Directive of the European Parliament and of the Council of 7th March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) (2002/21/EC). Under section 168(1) the Office of Communications (“OFCOM”) may by regulations authorise the transfer to another person by the holder of a wireless telegraphy licence, or the holder of a grant of recognised spectrum access, of rights and obligations arising by virtue of such a licence or grant.

These Regulations authorise the transfer of all rights and obligations arising by virtue of the wireless telegraphy licences of the classes listed in Column 1 of each Part of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part. This includes licences granted for the Public Mobile Operator sector, the Fixed Wireless sector, Point to Point Fixed Links licences and Scanning Telemetry licences.

Certain transfers of rights and obligations relating to parts of the licensed range of frequencies are authorised for licences granted for the Public Mobile Operator sector, the Fixed Wireless Access sector, Point to Point Fixed Links licences and Scanning Telemetry licences. The transfer of the rights and obligations relating to a part of the licensed geographical area is authorised for certain licences within the Fixed Wireless Access class and the Broadband Fixed Wireless Access class.

Two types of transfer are authorised. Firstly, a transfer may be one in which the rights and obligations of the person making the transfer become rights and obligations of the transferee to the exclusion of the person making the transfer. Secondly, a transfer may be one in which the transferred rights and obligations become rights and obligations of the transferee while continuing, concurrently, to be rights and obligations of the person making the transfer.

These Regulations specify circumstances in which transfers are not authorised which include where OFCOM has not given its consent. These Regulations set out the matters which OFCOM shall take into account in determining whether or not to consent. If OFCOM consents to a transfer they may also direct that a transfer shall only be put into effect after compliance with conditions. These Regulations also set out the procedure for making transfers.

A full regulatory impact assessment of the effect that these Regulations would have on the costs to business is available to the public from the OFCOM Library at Riverside House, 2a Southwark Bridge Road, London SE1 9HA (Tel: 020 7981 3000) or on the Office of Communications Internet web site at www.ofcom.org.uk. Copies of the report have also been placed in the libraries of both Houses of Parliament.
Annex 4
Draft Register Regulations

STATUTORY INSTRUMENTS

2004 No. XXXX

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Register) Regulations 2004

Made - - - - 2004
Coming into force - - 2004

Whereas the Office of Communications ("OFCOM") have given notice of their proposal to make these Regulations in accordance with section 403(4)(a) of the Communications Act 2003 (18) ("the 2003 Act") and published notice of their proposal in accordance with section 403(4)(b) of the 2003 Act and have considered the representations made to them before the time specified in the notice:

Now, therefore, OFCOM, in exercise of the powers conferred upon them by section 170(1), (2) and (4) and section 403(7) of the 2003 Act hereby make the following Regulations:

Citation, commencement and extent

1. These Regulations may be cited as the Wireless Telegraphy (Register) Regulations 2004 and shall come into force on [                ] 2004.

2. These Regulations shall not extend to the Channel Islands or to the Isle of Man.

Public register of information

3. OFCOM shall establish and maintain a public register of relevant information to which these Regulations apply.

4.—(1) The description of relevant information prescribed for the purposes of section 170(2) of the Communications Act 2003 is information which relates to the issue, renewal or variation of wireless telegraphy licences of a class specified in Column 1 of each Part of the Schedule which apply to a station or apparatus operating within any of the frequency bands specified in Column 2 of the same Part and which relates to the matters set out in paragraph (2).

(2) The matters are —
(a) the identity and contact address of the holder or concurrent holders of a wireless telegraphy licence;
(b) the reference number of a wireless telegraphy licence; and
(c) the terms, provisions or limitations of a wireless telegraphy licence which concern the following —

(18) 2003 c.21.
(i) the frequencies assigned; and
(ii) the geographical area of transmission.

**Inspection of the register**

5. There shall be no charge for inspection of the register by the public.

*Name*

Date For and by authority of the Office of Communications
## SCHEDULE

### LICENCE CLASSES AND FREQUENCY BANDS

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EXPLANATORY NOTE
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Under section 170(1) of the Communications Act 2003 the Office of Communications ("OFCOM") may, by regulations, make provision for the establishment and maintenance of a wireless telegraphy register. Under section 170(2) of that Act OFCOM may only include relevant information in the register if it is information of a description prescribed by regulations. These Regulations provide that OFCOM shall establish and maintain a register of relevant information and prescribe the relevant information.

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