



# Decision to make the Wireless Telegraphy (Mobile Communication Services on Aircraft) (Exemption) Regulations 2008

Statement

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## Section 1

# Executive summary

- 1.1 This statement confirms that, following a formal consultation, the Wireless Telegraphy (Mobile Communication Services on Aircraft) (Exemption) Regulations 2008 (the “MCA Regulations”) were made by us on 10 September 2008, and are coming into force on 1 October 2008. A copy of the MCA Regulations can be obtained through the Office of Public Sector Information (OPSI).<sup>1</sup>
- 1.2 The MCA Regulations enacts the European Commission Decision 2008/294/EC of 7 April 2008 on harmonised conditions of spectrum use for the operation of mobile communication services on aircraft (MCA services) in the Community (the “MCA Decision”).<sup>2</sup> The implementation of this Decision is mandatory on all European Union (EU) Member States by 7 October 2008.
- 1.3 The MCA Regulations exempt the use of mobile terminals when connecting to a Mobile Communications on Aircraft (MCA) service above 3000 metres. Prior to the introduction of the MCA Regulations mobile terminals were only licence exempt when connected to a terrestrial network.<sup>3</sup> The MCA service effectively replicates the operation of a terrestrial base station but on an aircraft.
- 1.4 A MCA service consists of an onboard pico-cell base station and an onboard Network Control Unit (NCU). It is to this system that mobile terminals used by passengers may connect to. The NCU is used to prevent the mobile stations within the cabin from accessing terrestrial networks and ensure that the mobile stations do not transmit any signal without being controlled by the onboard GSM system. The NCU achieves this by raising the radio-frequency noise floor within the mobile frequency bands to a level that blocks the signal from terrestrial networks. As the mobile terminal cannot receive a terrestrial control channel, it will not be able to register. As a consequence, it will remain in an idle state and not transmit. When the mobile receives an MCA control channel, which is transmitted at a higher level than the NCU signal, it will come out of its idle state.
- 1.5 Both the base station and NCU will be subject to the licensing requirement of section 8(1) of the Wireless Telegraphy Act. The base station and NCU will need to be authorised via a variation of the aircraft’s existing wireless telegraphy licence. The aircraft operator will therefore need to apply to the Civil Aviation Authority (CAA) for a variation of their licence. Operators of MCA services will need to abide by the power levels set out in the MCA Regulations.
- 1.6 Before deciding to make the MCA Regulations, in accordance with the requirements of section 122(4) of the Wireless Telegraphy Act 2006 (the “WT Act”), on 28 July 2008 we published a Statutory Notice<sup>4</sup> (the “Notice”) containing a draft of the regulations (the “Proposed Regulations”) and invited comments from stakeholders.

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

<sup>2</sup> Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:098:0019:0023:EN:PDF>.

<sup>3</sup> As described in the Wireless Telegraphy (Exemption) Regulations 2003.

<sup>4</sup> Available at <http://www.ofcom.org.uk/consult/condocs/mca08/mca.pdf>.

- 1.7 We received six responses to the Notice. A summary of the consultation responses that we received is set out in Section 3 of this document. A copy of the responses we received can be viewed on our website.<sup>5</sup>
- 1.8 Having carefully considered the consultation responses we have made some amendments to the final text of the regulations. Details of these changes are outlined in Section 3 of this document.
- 1.9 The territorial extent of the regulations is discussed in paragraphs 3.8 to 3.12.
- 1.10 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/consumers.
- 1.11 A list of respondents is available in Annex 2.
- 1.12 A glossary of abbreviations is contained in Annex 3.

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<sup>5</sup> <http://www.ofcom.org.uk/consult/condocs/mca08/responses/>

## Section 2

# Introduction

## Our powers

- 2.1 We are responsible for authorising the civil use of the radio spectrum and achieve this by granting wireless telegraphy licences under the Wireless Telegraphy Act 2006 ("WT Act") or by making regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 8(1) of the WT Act, it is an offence to install or use equipment to transmit without holding a licence granted by us, unless the use of such equipment is exempted. Under Section 8(4) of the WT Act we must make regulations to exempt equipment if its installation or use is unlikely to cause undue interference.
- 2.2 Exemption is realised by describing the details of equipment and the parameters under which it may be used in regulations that exempt users of such equipment from the need to hold a WT Act licence, provided they comply with the terms of those regulations.

## Background

- 2.3 We originally published a discussion document on 10 April 2006 that set out the background and some of the issues to be considered in relation to the introduction of MCA services.<sup>6</sup> We received a number of helpful comments and held a seminar with stakeholders on 9 June 2006 where many of the key issues of spectrum and electronic communications service authorisations were discussed.<sup>7</sup> The responses to the discussion document were summarised in a document published on 31 October 2006,<sup>8</sup> and non-confidential responses were published on our website.<sup>9</sup>
- 2.4 The Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations (CEPT) adopted Decision ECC/DEC/(06)07 ("the ECC Decision") in December 2006.<sup>10</sup> The ECC Decision covers the free circulation and harmonised use of MCA systems and sets out the technical limits that must be observed to ensure that MCA services do not cause harmful interference. These limits are based on ECC Report 93,<sup>11</sup> which addresses the compatibility between equipment for MCA on board aircraft and terrestrial networks.
- 2.5 The European Telecommunications Standards Institute (ETSI) has taken the ECC Decision and developed a harmonised standard (ETSI EN 302 480) for equipment to deliver MCA. This standard went to public enquiry on 18 July 2007, concluding on 16 November 2007.<sup>12</sup> The final vote on the harmonised standard took place on 6 May 2008. The harmonised standard has now been approved and adopted and has been notified in the Official Journal of the European Union in August 2008.

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<sup>6</sup> Available at <http://www.ofcom.org.uk/research/telecoms/reports/aircraft/summary/>.

<sup>7</sup> Available at <http://www.ofcom.org.uk/research/telecoms/reports/aircraft/slides.pdf>.

<sup>8</sup> Available at <http://www.ofcom.org.uk/research/telecoms/reports/aircraft/stakeholderviews/>.

<sup>9</sup> Available at <http://www.ofcom.org.uk/research/telecoms/reports/aircraft/responses/>.

<sup>10</sup> Available at <http://www.ero.dk/documentation/docs/doccategory.asp?catid=1&catname=ECC/ERC/ECTRA%20Decisions>.

<sup>11</sup> Available at <http://www.ero.dk/documentation/docs/doccategory.asp?catid=4&catname=ECC/ERC/ECTRA%20Reports>.

<sup>12</sup> Available at [http://webapp.etsi.org/workProgram/Report\\_Schedule.asp?WKI\\_ID=25058](http://webapp.etsi.org/workProgram/Report_Schedule.asp?WKI_ID=25058).

- 2.6 ETSI are also currently developing a Technical Standard (TS) 102 576<sup>13</sup> to provide one possible measurement methodology for meeting the requirements of EN 302 480 and how the output power from the MCA equipment relates to the power limits outside the aircraft. It is difficult to determine a final completion date for the TS as it is dependent on the results of the tests that are being analysed by the ETSI group responsible and aligning these results between the tests from different companies. We will however expect licensees providing MCA services to show compliance with the requirements of the TS or an equivalent specification.
- 2.7 As any aircraft permitted to use a MCA service would likely be travelling across a number of different Member States, the European Commission believed that the implementation of and related regulations should be harmonised across the Community. They introduced the “European Commission Decision 2008/294/EC of 7 April 2008 on harmonised conditions of spectrum use for the operation of mobile communication services on aircraft (MCA services) in the Community (the “MCA Decision”).<sup>14</sup>
- 2.8 The MCA Decision required Member States to make the 1710 - 1785 MHz and 1805 - 1880 MHz frequency bands available for MCA systems on a non-protected, non-interference basis according to specified technical conditions. The MCA Decision is based on the ECC Decision and also refers to CEPT Report 016<sup>15</sup> and the harmonised standard developed by ETSI.
- 2.9 At the same time they also produced the “European Commission Recommendation 2008/295/EC of 7 April 2008 on authorisation of mobile communication services on aircraft (MCA services) in the European Community” (the “MCA Recommendation”).<sup>16</sup>
- 2.10 The MCA Recommendation addressed the coordination and mutual recognition of national authorisations granted for MCA services. Conditions for authorisations include compliance with the technical conditions referred to in the MCA Decision and the harmonised standard developed by ETSI.
- 2.11 We addressed the issue of allowing mobile terminals to be used on board aircraft in our consultation “Mobile communications on board aircraft: consultation on the introduction of mobile services on aircraft”<sup>17</sup> published on 18 October 2007. The consultation closed on 30 November 2007.
- 2.12 On 26 March 2008 we published a Statement “Mobile communications on board aircraft (MCA) Ofcom statement on authorising MCA services” outlining our proposals for the introduction of MCA services in the UK.<sup>18</sup>
- 2.13 In accordance with our statutory obligations a draft of the regulations to implement our decision (the “Proposed Regulations”) was published for consultation on 28 July 2008 in the document “Notice of proposal to make the Wireless Telegraphy (Mobile Communications on Aircraft) (Exemption) Regulations 2008” (the “Notice”), available on our website.<sup>19</sup>

<sup>13</sup> Available at [http://webapp.etsi.org/WorkProgram/Report\\_WorkItem.asp?WKI\\_ID=25967](http://webapp.etsi.org/WorkProgram/Report_WorkItem.asp?WKI_ID=25967)

<sup>14</sup> Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:098:0019:0023:EN:PDF>.

<sup>15</sup> Available at [http://ec.europa.eu/information\\_society/policy/radio\\_spectrum/docs/ref\\_docs/rsc19\\_public\\_docs/rscom07\\_08\\_fin\\_rep\\_%20mca.pdf](http://ec.europa.eu/information_society/policy/radio_spectrum/docs/ref_docs/rsc19_public_docs/rscom07_08_fin_rep_%20mca.pdf).

<sup>16</sup> Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:098:0024:0027:EN:PDF>

<sup>17</sup> Available at <http://www.ofcom.org.uk/consult/condocs/mca/mobilecomms.pdf>

<sup>18</sup> Available at <http://www.ofcom.org.uk/consult/condocs/mca/statement/mca.pdf>.

<sup>19</sup> Available at <http://www.ofcom.org.uk/consult/condocs/mca08/mca.pdf>.

- 2.14 Having considered the responses the responses to the consultation, to implement the changes, we have made a new Statutory Instrument, the MCA Regulations. The MCA Regulations will enter force on 1 October 2008.



## Section 3

# Scope of Regulations

## Responses to the Notice

- 3.1 We received six responses to the consultation on the Notice that closed on 29 August 2008.
- 3.2 Two of the responses we received were from providers of MCA equipment who fully supported the proposals outlined in the Notice.
- 3.3 We also received two responses from individuals who were not happy with the general policy of allowing mobile phone use on aircraft. We understand that the decision to allow the use of mobile phones on aircraft may not be welcomed by some citizens. These regulations do not mandate the installation of this equipment on aircraft, it is up to individual operators to determine whether they wish to deploy these services.
- 3.4 Two responses were received from mobile network operators who made comments regarding the drafting of the regulations. The comments made related to three points in the Proposed Regulations:
- the definition of ‘relevant network’;
  - the inclusion of two technical standards EN 301502 and EN 302480; and
  - clarification of the extent of application for non-UK registered aircraft.
- 3.5 Having reviewed the responses to the consultation we have decided to amend the regulations. The changes to our Regulations are:
- 3.5.1 In Regulation 1(2) inserted “These Regulations shall not extend to the Channel Islands or to the Isle of Man.”.
- 3.5.2 In Regulation 2 the interpretation of aircraft BTS has been changed to “means a base station transceiver station located in an aircraft”.
- 3.5.3 In Regulation 2 we have removed references to Article 2 (c) of Directive 2002/21/EC in the definition of an MCA.
- 3.5.4 In Regulation 2 the definition of dBm has been changed to “decibels of power reference to one milliWatt”.
- 3.5.5 In Regulation 2 the definition of relevant network has been changed and is now “means an electronic communications network that includes an aircraft BTS and network control unit”.
- 3.5.6 Regulation 4 has been reorganised to provide clarity regarding the terms, provisions and limitations which apply to the exempt mobile terminal apparatus, (Regulations 4(1) - 4(4)), and the network it is connecting to, (Regulations 4(5) - 4(6)). This included what references should be referenced for compliance with the regulations for the different pieces of equipment. References to EN 301 502 and EN 302 480 (these are specific

to base stations) have been separated from EN 301 511 (specific to handsets).

- 3.5.7 In Regulation 6 we have amended the text concerning the extent of application for the regulations to “The apparatus must be on board an aircraft which is registered in the United Kingdom and that aircraft may be over the United Kingdom or UK territorial sea or for the time being beyond the United Kingdom and the UK territorial sea”.
- 3.5.8 Column titles in Tables 1, 2 and 3 in the Schedule have been amended to remove any ambiguity.

## **Final scope of the Regulations**

- 3.6 We can exempt the establishment, installation and use of wireless telegraphy equipment by making Regulations under section 8(3) of the Wireless Telegraphy Act 2006. We proposed implementing the changes in the recent consultation that are summarised in this document by making the MCA Regulations.
- 3.7 The MCA Regulations exempt the use of mobile terminals on board aircraft pursuant to section 8(4) of the WT Act. The MCA Regulations mirror the technical parameters and standards set in the MCA Decision. They set the terms, provisions and limitations to be complied with for the on board MCA services. The MCA Regulations shall apply if:
- “Wireless telegraphy apparatus” (mobile terminals used by passengers) comply with EN 301 511 published by ETSI or equivalent specification.
  - The wireless telegraphy apparatus may only operate in the frequencies 1710 - 1785 MHz and 1805 - 1880 MHz and must only be used for MCA services.
  - The wireless telegraphy apparatus may only be used at a minimum height above ground of 3000 metres.
  - The wireless telegraphy apparatus must not cause or contribute to undue interference to any wireless telegraphy.
  - The wireless telegraphy apparatus may only be used where the transmission power of all wireless telegraphy apparatus is limited by the aircraft BTS to a nominal value of 0 dBm at all stages of communication, including initial access.
  - The wireless telegraphy apparatus may only be used where the e.i.r.p. outside the aircraft emanating from the wireless telegraphy apparatus transmitting at 0 dBm does not, at a height above ground specified in Column 1 of Table 1 of the Schedule, exceed the value of the maximum e.i.r.p. specified in Column 2 of that Table in relation to that height.
  - The wireless telegraphy apparatus must connect to a relevant network as described in Regulation 4(5) of the MCA Regulations.

## **Territorial Extent of the Proposed Regulations**

- 3.8 The MCA Recommendation states that Member States shall authorise provision of MCA services in aircraft registered within their jurisdiction. No additional authorisation is to be required for operation of MCA services in aircraft registered in other Member

States and outside the Community in compliance with conditions set in the MCA Decision.

- 3.9 Authorising use of the base station and NCU for aircraft registered in the United Kingdom will be carried out by a variation of the wireless telegraphy licence already issued by the CAA on behalf of ourselves to UK registered aircraft. This authorisation follows the requirements set out in the MCA Decision, so that following the MCA Recommendation, it should be recognised by other Member States when UK registered aircrafts operate MCA services above their territory.
- 3.10 The MCA Regulations will not apply to the Channel Islands or the Isle of Man. Any extension of regulations to cover the Islands will be dealt with separately after discussions with the relevant authorities.
- 3.11 The draft regulations stated that this exemption would apply to mobile terminals on board non-UK registered aircraft over the UK. We have amended the MCA Regulations so that this is no longer part of the regulations. This is because Section 50(4) of the WT Act removes the need for a wireless telegraphy licence or exemption for using apparatus on board foreign aircraft. Section 50(4) excludes the application of criminal prohibition in Section 8 for foreign aircraft, therefore there is no need to exempt the mobile terminals. The MCA Recommendation sets out the provisions for mutual recognition between Member States as spectrum regulations are concerned and the UK will recognise national authorisations granted for MCA services.
- 3.12 The MCA Regulations apply to terminals used on board an aircraft which is registered in the United Kingdom and that aircraft may be flying over the United Kingdom or UK territorial sea or for the time being beyond the United Kingdom and the UK territorial sea.

## Annex 1

# Impact Assessment

## Introduction

- A1.1 In accordance with Government practice, where a statutory regulation is proposed, a Regulatory Impact Assessment ("RIA") must be undertaken.
- A1.2 The analysis presented here, represents an RIA as defined by section 7 of the Communications Act 2003 ("the Communications Act") for the Wireless Telegraphy (Mobile Communication Services on Aircraft) (Exemption) Regulations 2008 (the "Proposed Regulations").
- A1.3 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 Communications Act, which means that we will generally carry out impact assessments where 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. In accordance with section 7 of the Communications Act, in producing this RIA, we have had regard to such general guidance as we consider appropriate including related Cabinet Office guidance. For further information about our approach to impact assessments, see the guidelines, Better policy-making: Ofcom's approach to impact assessment, which are on our website:  
[http://www.ofcom.org.uk/consult/policy\\_making/guidelines.pdf](http://www.ofcom.org.uk/consult/policy_making/guidelines.pdf).

## Background

- A1.4 In the UK, we are responsible for authorising the civil use of the radio spectrum and achieve this by granting wireless telegraphy licences under the Wireless Telegraphy Act 2006 ("the Wireless Telegraphy Act") and by making Regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 8(1) of the Wireless Telegraphy Act, it is an offence to install or use equipment to transmit without holding a licence granted by us, unless the use of such equipment is exempted. Section 8(3) enables Ofcom to make regulations exempting equipment from the requirement to hold a licence subject to specified terms, provisions and limitations and under Section 8(4) of the Wireless Telegraphy Act we must make regulations to exempt equipment if it is unlikely to cause undue interference.

## The citizen and/or consumer interest

- A1.5 Following the publication of the European Commission Decision 2008/294/EC of 7 April 2008 on harmonised conditions of spectrum use for the operation of mobile communication services on aircraft (MCA services) in the Community (the "MCA Decision") and the European Commission Recommendation 2008/295/EC of 7 April 2008 on authorisation of mobile communication services on aircraft (MCA services) in the European Community (the "MCA Recommendation"), we proposed authorising the use of equipment on board aircraft in flight so that passengers can use their mobile phones to make and receive calls while flying. The business opportunity seen by proponents of MCA for airlines, specialist operators and the

mobile phone networks is based on the expectation that customers will find the service sufficiently valuable to use and pay for it.

- A1.6 Some consumers have suggested that the use of mobiles during flight will irritate other passengers and compromise their comfort and welfare. They argue that aircraft in flight are one of the few places where mobile phones are not permitted and that this immunity should be preserved. Some of their concerns stem from the prospect of a long journey sitting next to someone speaking loudly on their mobile.
- A1.7 However there are many ways in which some passengers can annoy others, and in these cases it is a matter for airlines and aircraft operators how to balance the services they offer to their passengers with the impact that they have. An example is the serving of alcohol on board, which can lead to disruptive behaviour. Airlines have developed procedures for dealing with negative consequences of alcohol; but many have decided that, with these safeguards, alcohol remains a valued part of their service. It is likely that similar procedures will be developed to deal with any negative impact of mobile phone use. The Civil Aviation Authority (CAA) in the UK and similar organisations in other countries assess and certify the effectiveness and suitability of onboard procedures like these.
- A1.8 The installation of MCA radio equipment is entirely under the control of the airline. Airlines therefore have the choice of whether to offer MCA services or not. They will be better placed than any regulator to understand and reflect the preferences and requirements of their customers. The air transport market is generally highly competitive and in the case of significant public dislike of MCA the airlines are likely to be able to respond flexibly to their customers' preferences.
- A1.9 The tariffs for these in-flight MCA services might be higher than those charged for terrestrial services due to the differing costs of MCA compared to terrestrial networks. The pricing of these services will be subject to the relevant regulations, under which we have the power to investigate and address cases of consumer detriment. However these services are in their infancy and it would be premature to predict serious problems at this stage.

### **Ofcom's policy objective**

- A1.10 Under the Communications Act 2003 we must have regard to the desirability of encouraging investment and innovation in relevant markets as well as to further the interests of citizens and consumers. MCA services represented a potentially valuable innovation and the development of a new market for mobile communications. Establishing a regulatory framework in which MCA systems can be deployed was in line with the development of a co-ordinated approach to MCA across Europe which followed the adoption of the MCA Decision and the MCA Recommendation. This allowed for the mutual recognition of Member States' authorisations for MCA on the basis of common technical and authorisation requirements.

### **Options considered**

- A1.11 There are two issues whose impact we needed to assess for us to authorise the use of mobile terminals when connecting to an MCA service:
- The authorisation of MCA services based on the European Union (EU) common approach; and

- Whether the authorisation of terminals connecting to MCA radio equipment should be the same as when connecting to terrestrial networks (i.e. licence exempt).

### **Authorisation of MCA and the EU common approach**

- A1.12 Mobile phone use on aircraft has always been prohibited because of concerns about potential interference to safety-critical aircraft systems. Similar rules about other electronic devices (e.g. laptops and games consoles) have been relaxed in recent years and these are now generally permitted except during the take-off and landing phases of flight.
- A1.13 At the EU level, the technical work has now been done which allows a similar relaxation of the rule against using mobile phones on board. The consensus among technical experts in Europe and elsewhere is that technical standards can be defined to allow for MCA services.
- A1.14 European bodies have set out the common technical requirements for MCA and have developed a harmonised standard to reduce the risk of possible interference to terrestrial networks and are currently working on a complimentary technical standard. We believe that these standards will be adequate to reduce the risk of harmful interference. However MCA services are a new and innovative development and they are untested in a “live” environment. There is therefore the possibility that they may generate interference, either singularly or cumulatively, which may harm terrestrial radio systems. We expect the necessary precautions to be taken to ensure this situation does not arise, so that the terrestrial networks do not suffer interference.
- A1.15 Proponents of MCA argued that such systems offer additional value to passengers. Their business cases rest on the assumption that passengers will pay for the service. There are likely to be significant costs for installing MCA systems, unlike, for example, mobile services on trains or buses which use the existing terrestrial networks. If MCA services are not valued by consumers, they will not be used and few installations will be made. We therefore rely on the market to determine the degree to which MCA services are rolled out.
- A1.16 EU Member States and the European Commission have now defined the technical and authorisation parameters which will allow MCA to be launched across Europe. The outcome of this initiative is a mandatory requirement for Member States to make 1710 - 1785 MHz and 1805 – 1880 MHz spectrum available for MCA. This requirement can not be disregarded and Member States are expected to authorise MCA. Further, if the UK did not participate in this approach, it might be argued that UK businesses and consumers would be disadvantaged in not having access to these innovative services. At the same time UK consumers’ ability to choose airlines which offer the services they want would be reduced.
- A1.17 In light of these factors, and in particular the MCA Decision and MCA Recommendation, we believed that the authorisation of mobile terminals on board aircraft should be based on the common EU regulatory framework.

### **Terminal licence exemption when connecting to a MCA service**

- A1.18 Mobile terminals are already licence exempt when connected to terrestrial networks. The MCA service effectively replicates the operation of a terrestrial base

station but on an aircraft. Users could use their existing terminal without the need to configure it in order to access the MCA service.

- A1.19 As there is no requirement on mobile terminal users to hold a Wireless Telegraphy Act licence when using it terrestrially, then to require a licence when using the same equipment on board an aircraft would be disproportionate and would likely have proved a barrier to the uptake of the service.
- A1.20 In the UK all radio equipment must be either licensed or specifically exempted from use under the Wireless Telegraphy Act. In support of our objectives of deregulation and administrative simplification we exempt radio equipment wherever it is sensible to do so. In the case of mobile terminal equipment, such as mobile telephones, connected to the major service provider networks it would be impractical and unfeasible to issue individual licences and we therefore need to exempt this equipment. The effect will be that provided the equipment meets the relevant technical and operational criteria and standards, a licence will not be required in order to use it. The exemption is therefore achieved by reference to the performance specification of the mobile equipment used by the end-users on the licensed specified network.
- A1.21 For these reasons it would be more effective and straightforward for terminals connecting to a MCA service to follow the same licensing regime as when connecting to terrestrial systems.

## Conclusion

- A1.22 As explained in our Statement of 26 March 2008, we considered that the pico-cell base station and NCU should be licensed rather than licence-exempt and that the authorisation should be granted to UK registered aircraft via a variation (NoV) of the existing aircraft licence.
- A1.23 We consider that the mobile terminal should be licence exempt and treated the same way as when connecting to a terrestrial network and so have made the Proposed Regulations to implement that policy decision and to partially implement the MCA Decision.

## Annex 2

# List of respondents

Curley, A

OnAir SARL Switzerland

Vodafone

Waddell, B.J.

AreoMobile

T-Mobile



## **Annex 3**

# **Glossary of abbreviations**

<b>CEPT</b>	European Conference of Postal and Telecommunications Administrations
<b>ECC</b>	Electronic Communications Committee
<b>ETSI</b>	European Telecommunications Standards Institute
<b>GSM</b>	Global System for Mobile Communications
<b>MCA</b>	Mobile Communications on Aircraft
<b>NCU</b>	Network Control Unit
<b>RIA</b>	Regulatory Impact Assessment