



Extending spectrum transfer to the maritime and satellite earth station sectors

Statement

Publication date:

23 May 2012

Contents

Section		Page
1	Executive summary	1
2	Responses to the consultation	3
3	Ofcom's decision	8
Annex		Page
1	List of respondents	12

Section 1

Executive summary

- 1.1 This document outlines our decision following the consultation on “Extending spectrum transfer to the maritime and satellite earth station sectors” that we opened on 2 December 2011 (the ‘2011 consultation’)¹. The 2011 consultation set out proposals to permit the transfer of maritime and satellite earth station licences to a third party (spectrum transfer).
- 1.2 We received four non-confidential responses to the 2011 consultation. The non-confidential respondents are listed in Annex 1 of this document and copies of the responses are available on our website². We have given consideration to the comments which were raised and these are addressed in Section 2 of this document. After evaluating the responses we have decided to go ahead with our proposals to make maritime and satellite earth station licences transferable. We have however made a minor change to our proposal in relation to partial transfers for Satellite earth station network licences.
- 1.3 This decision will permit maritime and satellite earth station licensees to transfer their spectrum rights outright or in part in some instances, once regulations have been made. The changes will allow licensees the flexibility to transfer unused/ underused elements of their spectrum holdings to a third party who could make use of it. However, this decision does not permit the new licensee who has been transferred the rights and obligations of the licence to use spectrum for an alternative purpose. The new licensee will still be bound to the terms, conditions and restrictions of the original licence.
- 1.4 The specific licence classes to which we have decided to extend the ability to transfer are listed below. However, there are differences in the type of partial transfers that would be permitted and this is outlined in section 3 of this document:
- Coastal Station Radio (International);
 - Coastal Station Radio (UK);
 - Coastal Station Radio (International) Area Defined;
 - Coastal Station Radio (UK) Area Defined;
 - Coastal Station Radio (Marina);
 - Coastal Station Radio (Training School);
 - Differential Global Positioning System (DGPS);
 - Maritime Radio (Suppliers and Demonstration);
 - Permanent Earth Station (PES);

¹ <http://stakeholders.ofcom.org.uk/consultations/transfer-maritime-satellite/>

² <http://stakeholders.ofcom.org.uk/consultations/transfer-maritime-satellite/?showResponses=true>

- Transportable Earth Station (TES);
- Satellite (Earth Station Network);
- Satellite (Earth Station) (Non-Fixed Satellite Service); and
- Satellite (Earth Station) (Non-Geostationary).

1.5 It is important to note that although our decision would introduce the ability for licensees to transfer all or part of the rights arising by virtue of their Wireless Telegraphy Act 2006 (the 'WT Act') licence, there is no compulsion to do so. Spectrum transfer is not mandatory and therefore our decision has no impact on those licensees (or their current licence terms) who do not wish to engage in it.

1.6 In order to implement our decision we will need to make regulations. Before making any regulations we are required by section 122(4) of the WT Act to give notice of our proposal to do so. We expect to publish a consultation on our draft regulations by July 2012.

Section 2

Responses to the consultation

Introduction

- 2.1 In our 2011 consultation, we proposed to make all licence classes in the maritime and satellite earth station sectors transferable. Section 4 of the 2011 consultation outlined our proposals and asked for comments on them. We received four non-confidential responses. The responses with our comments are summarised below under the headings of the questions posed in the 2011 consultation.. Respondents' views on other issues are addressed as they arise later in this section.

Maritime

Question 1) Do you agree with our proposal to make maritime licences transferable and the proposed limitations on the types of transfer to be allowed?

- 2.2 The General Lighthouse Authorities of the UK and Ireland (GLA), the Chamber of Shipping and the Maritime and Coastguard Agency (MCA) all raised a number of concerns regarding our proposals. These fall into a number of broad areas and are summarised below along with our response.

The affected frequency bands not specified

- 2.3 All three responses commented that the radio frequencies that would be affected were not outlined in the 2011 consultation document. They stated that this made it unclear as to which services could potentially be impacted by our proposals. The MCA stated that Coastal Station Radio (CSR) licences could be issued for frequencies in the Medium frequency (MF) and High frequency (HF) bands and it was not clear to what extent these were to be included in the consultation exercise.
- 2.4 We appreciate the respondents' comments over the non-specification of the channels related to each of the licence classes that we proposed to make transferable and the problems this may have caused them. In the 2011 consultation document, we set out each of the licence classes that we proposed to make transferable. Although we did not specify the frequency bands associated with each licence class, the intention of our proposals was to permit transfers in relation to all the frequencies within which wireless telegraphy is *normally* authorised under the licences in question.
- 2.5 The channels associated with each licence class are publicly available through the guidance issued in "Ofcom information booklet Of18"³. We presumed that stakeholders would have been aware of the set of channels issued for their particular type of licence. However, for clarity, we have outlined the broad frequency bands (not individual channels) that can be transferred in section 3 of this document. For further details on individual channels associated with each licence class that we have decided to make transferable, we invited stakeholders to refer to the information booklet described above.
- 2.6 In response to the MCA's specific point, we do not *normally* authorise the use of MF and HF frequencies under the standard set of CSR licences. Normally, CSR licences do not allow the use of these non-VHF frequencies. Therefore, we are not extending

³ <http://licensing.ofcom.org.uk/binaries/spectrum/maritime-radio/guidance-for-licensees/of18.pdf>

the ability to transfer the rights of use for non-standard MF and HF frequencies. We are aware that the MCA uses these MF and HF radio frequencies and, indeed, is the only user of such frequencies.

Change of use

- 2.7 The Chamber of Shipping and MCA were concerned that the extension of spectrum transfer could lead to maritime bands being allocated to non-maritime users, greatly increasing the potential for interference. In the MCA's response they asked for clarification to what extent change of use of existing channels would be permitted under our proposals.
- 2.8 We would like to confirm that the proposals in our 2011 consultation only related to the ability of a licensee to transfer all or part of their rights and obligations to a third party. When making a transfer all existing rights and obligations are transferred to the new licensee and the new licensee would continue to hold the same type of CSR licence and be subject to the same restrictions on use as the old licensee. This will, in practice restrict the new licensee to use the spectrum in a similar way as the previous licensee. In this statement we refer to "no change of use" in order to describe this (ie the introduction of spectrum transfers does not of itself create the opportunity to change use). We may wish to consider the liberalisation of some maritime licences in the future but this is not within the scope of the current consultation. Any such proposal on liberalisation would be subject to consultation with stakeholders.

Partial segmentation

- 2.9 The Chamber of Shipping and GLA advised that the transfer of area-defined licences may work without any detrimental effect. However, all three responses raised significant concerns over the ability to transfer part of a frequency allocation. They warned that changes to channel spacing should be treated with great caution, especially where those channels are used by non-UK ports and vessels.
- 2.10 We acknowledge the vital role played by international maritime channels in maritime safety. Our spectrum transfer proposals reflected this. As stated in paragraph 4.6 of the 2011 consultation for CSR (International) licences we will only permit total or concurrent transfers, as the channel bandwidths and their use are set internationally. For CSR (international) Area Defined licences, we proposed to only allow partial transfers of geographic segments down to our minimum licensing unit, currently 50 km x 50 km squares.
- 2.11 For both CSR (International) and CSR (International) Area Defined licence classes, if a licence authorised the use of more than one assigned channel⁴, the rights and obligations relating to any channel may be transferred in whole. The party purchasing the rights and obligations relating to each channel would be granted the same CSR (International) licence so there would be no change of use. For duplex assignments the transfer would not give rise to any right to transmit on the receive frequency which, together with the transmit frequency, constitute the channel that can be used under the licence. The restriction on the type of transfer permitted is to ensure that there is no impact on non-UK vessels and ports.

⁴ In the case of duplex assignment 'channel' means both the transmit and receive frequencies, as set out in Table 4.2 of Ofcom information booklet Of18.

- 2.12 We are subject to fewer restrictions in relation to UK only allocated maritime spectrum. Consequently, with CSR (UK) licences, we will allow holders of Area Defined licences to trade both segments of spectrum, down to 6.25 kHz, and/or geographic segments down to a 50 km x 50 km square. There will be no change of use, so the resulting licence(s) will still be CSR (UK) licence(s). Holders of a CSR (UK) licence, which authorises the use of a coast station in one location, may transfer an assigned channel or segment thereof, again down to 6.25 kHz. As for the other licence classes, there would be no change of use.
- 2.13 We appreciate that any changes to frequency bandwidths needs to be carefully co-ordinated in order to ensure that no harmful interference occurs to UK and non-UK users. We would like to make it clear that the decisions on spectrum segmentation in this document are only for those maritime channels allocated for UK purposes only. Any transferred licences would continue to operate under the same terms and conditions.
- 2.14 In their responses, all three organisations advised that it is not clear how harmful interference would be prevented if transfers are allowed in relation to licences that are not area defined. The MCA wished for clarification of how segmentation would occur in practice.
- 2.15 As set out in paragraph 4.4 of the 2011 consultation, prior to any frequency segmentation request for a CSR (UK) licence being granted, we will vary the licence and carry out a number of assignment tests the same way we would for any new assignment. This is to ensure that the new variation would not cause any undue interference between licensees. If the proposed variation to a reduced bandwidth was to cause undue interference we would refuse any such request. This type of transfer already happens for similar land based Private Mobile Radio systems in our Business Radio licence products.

International co-ordination

- 2.16 The Chamber of Shipping believed that putting forward the proposals set out in our consultation document without carefully planned international co-ordination will pose unacceptable risks to maritime safety in and around UK waters.
- 2.17 As advised in paragraph 4.6 of the 2011 consultation, our proposals would not permit spectrum segmentation for internationally designated channels. For this reason we do not believe our decision to go ahead with our proposals would increase the risk to maritime safety or require international agreement.

Safeguards for mobile stations

- 2.18 The MCA advised that there appears to be no safeguards for mobile stations using the frequencies available for coastal station licences, nor any protection against a change of use ashore which may impact their current function.
- 2.19 Paragraph 2.8 states our position on change of use. In relation to mobile stations on a ship there are two regimes depending on whether the licence is for international or UK only channels. For CSR (International) licences the mobile station is covered by a ship radio licence and therefore not included in the proposals set out in our 2011 consultation document. As explained above, no change of use or bandwidth for CSR (International) licences would be permitted, so there will be no impact on the current use of international mobile stations.

- 2.20 CSR (UK) licences cover the use of both the coastal station and any associated mobile stations on ships. As mobile use is covered under the licence, any segmentation of the licence would also apply to all associated mobile stations. These mobile stations would have to operate under the new reduced frequency allocation and any change of infrastructure/ equipment would have been considered as part of the licensee's decision to transfer. This type of transfer already happens for similar land based Private Mobile Radio systems.

Prior consultation before publication

- 2.21 The Chamber of Shipping was unhappy that existing users of spectrum were not consulted sufficiently prior to the publication of the proposals. They stated that the views of the UK Maritime Spectrum Strategy Group (MSSG) should have been sought and they could not support the current proposals without further discussion within the MSSG in order to analyse the potential impacts of the proposals.
- 2.22 First of all we would like to take this opportunity to fully support the work that is carried out by the MSSG. At the October 2011 meeting, we notified the group that we were proposing to consult on the introduction of transfers to some maritime licences.
- 2.23 We would like to point out that our proposals to allow spectrum transfers for the maritime sector has been an ongoing policy commitment of Ofcom. In our statement entitled "*A Statement on Spectrum Trading*"⁵ published in 2004 we said that we would introduce trading to various classes of licences, including maritime. The original intention was to make maritime licences transferable by 2007.
- 2.24 The ability to transfer the rights and obligation arising from a licence from one party to another is primarily an issue of licensing policy and part of our continued work towards our duty of ensuring the efficient use of spectrum. As the GLA advised in their response, the present use of the VHF band is known to be inefficient (analogue, 25 kHz channels) and that more efficient technical solutions (digital, 12.5 or 6.25 kHz channels) are known to be feasible.
- 2.25 To encourage more efficient use we introduced AIP-based fees last year. This introduced a pricing and licensing structure, based on multiples of 6.25 kHz channels, for CSR (UK) channels. As the use of channel bandwidths of less than 25 kHz under a CSR (UK) licence was introduced last year, we did not believe that our proposals to permit spectrum segmentation through transfers would raise any additional safety issues. The proposals set out in the 2011 consultation were intended to further incentivise licensees to move towards greater efficient use of spectrum by allowing them to transfer their rights relating to unused/ underused spectrum to another CSR user.
- 2.26 Additionally, since the publication of the 2011 consultation, we have further discussed the proposals at the April 2012 MSSG. In that meeting the parties present including the MCA and GLA, when provided with the further clarification on some of the points raised in response to the 2011 consultation, were in agreement with our decision.

⁵ http://stakeholders.ofcom.org.uk/binaries/consultations/spec_trad/statement/sts.pdf

Satellite earth stations

Question 2) Do you agree with our proposal to make earth station licences in the satellite area transferable and the proposed limitations on the types of transfer to be allowed?

- 2.27 We received four responses to our proposal to extend transfers to satellite earth station licences. Arqiva welcomed the proposal as it removes unnecessary regulatory uncertainty but advised that the right to transfer should not be used as a reason to change the existing processes that are in place to approve uplink licences.
- 2.28 The proposals in the 2011 consultation concerned only the ability to transfer the rights and obligations arising from a WT Act licence. We were not proposing any changes in the way in which we approve uplink licences as part of this process.
- 2.29 The MCA, the Chamber of Shipping and GLA all commented that the lack of information concerning the individual frequency bands and services affected by our proposals made it difficult to support any proposal. They sought assurances that satellite bands used for maritime safety and communication purposes will not be impacted as these are governed by international convention. In particular the MCA raised the issue of mobile earth stations used on ships.
- 2.30 We apologise again that the lack of specific frequency information made it difficult for some stakeholders to understand our proposals. Our proposals to permit spectrum transfers for satellite earth stations will not impact on the delivery of maritime safety or communications. Equipment onboard vessels are licensed through a Ship WT Act licence and are therefore out of the scope of this decision. The satellite earth station licences that we proposed to make transferable are predominately used to provide telecommunication and broadcasting services. Our proposals were designed to permit a more efficient approach and guarantee a continuation of service when companies decide to transfer ownership. As already stated in relation to maritime licence classes, there will be no change of use as part of the transfer process.
- 2.31 In the MCA's response they felt that the consultation did not describe how segmentation or partial transfer could be effected.
- 2.32 We stated in the 2011 consultation that proposals for satellite earth station licences would only permit the outright or concurrent transfer of a licence or the transfer of an individual assignment⁶. We were not proposing to permit any licensee to segment and transfer part of their spectrum allocation or geographical coverage area. We did propose, and have decided, that for all satellite earth station licences we will allow the transfer of rights and obligations relating to individual earth stations (i.e. individual assignments).
- 2.33 However, in the case of Satellite (Earth Station Network) licences, we have reviewed this approach and have decided that partial trades will not be permitted. This is because, on closer examination of the licence class, it is apparent that multiple assignments on a licence do not occur (instead, the licence provides a general authorisation across defined frequency ranges).

⁶ See table 2 of the 2011 consultation.

Section 3

Ofcom's decision

- 3.1 After considering the responses that were received we have decided to go ahead with the proposals to extend spectrum transfers to maritime and satellite earth station licences. Table 1 outlines the list of licence classes that we have decided to make transferable and the types of transfer permitted. We will implement this decision by making regulations (see paragraphs 3.3 to 3.5 below).
- 3.2 As explained in paragraph 2.30, we have decided to make a slight change to our proposals in relation to the ability of some users to transfer the rights and obligations under the licence relating to an individual station. After reviewing the proposals set out in the 2011 consultation we have decided that this type of partial transfer would not be appropriate for the Satellite (Earth Station Network) licence class.

Table 1: List of licence classes and permitted types of transfer

Licence class	Types of transfer
Coastal Station Radio (International) <i>156–162.05 MHz</i>	Outright Concurrent Partial transfer - Transfers of the rights and obligations relating to individual base stations (“individual assignments”) where the licence covers more than one base station. In the case of duplex channels, the rights and obligations under the licence relating to both frequencies would be transferred, however this would not give rise to any rights to transmit on the receive leg frequency. Spectrum segmentation will not be permitted due to international rules.
Coastal Station Radio (UK) <i>137.962–165.043 MHz</i>	Outright Concurrent Partial transfer - Spectrum segmentation to a minimum channel width of 6.25 kHz (subject to prior licence variation). Partial transfer - Transfers of the rights and obligations relating to individual base stations (“individual assignments”) where the licence covers more than one base station.
Coastal Station Radio (International) Area Defined	Outright Concurrent

<p>156–162.05 MHz</p>	<p>Partial transfer - Geographical segmentation possible down to a minimum trading unit (50 km grid square).</p> <p>Partial transfer - Transfers of the rights and obligations relating to individual base stations (“individual assignments”) where the licence covers more than one base station. In the case of duplex channels both frequencies would be transferred, however this would not give rise to any rights to transmit on the receive leg frequency. Spectrum segmentation will not be permitted due to international rules.</p>
<p>Coastal Station Radio (UK) Area Defined</p> <p>137.962–165.043 MHz</p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer - Spectrum segmentation to a minimum channel width of 6.25 kHz (subject to prior licence variation).</p> <p>Partial transfer - Geographical segmentation possible down to a minimum trading unit (50 km grid square).</p> <p>Partial transfer - Transfers of the rights and obligations relating to individual base stations (“individual assignments”) where the licence covers more than one base station.</p>
<p>Coastal Station Radio (Marina)</p> <p>157.025 MHz, 157.85 MHz and 161.425 MHz</p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer – none permitted</p>
<p>Coastal Station Radio (Training School)</p> <p>137.962–165.043 MHz</p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer – none permitted</p>
<p>DGPS</p> <p>283–315 kHz, 435–495 kHz 505–526 kHz, 1625–1635 kHz 1800–1810 kHz, 1850–2000 kHz, 2000–2025 kHz, 2160– 2170 kHz, 2625–2650 kHz, 2650–2850 kHz, 3155–3200 kHz, 3200–3230 kHz and 3500–3800 kHz</p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer – none permitted</p>

<p>Maritime Radio (Suppliers and Demonstration)</p> <p><i>283-315 kHz, 415-526 kHz, 16.06-27.5 MHz, 121.5 MHz, 121.65 MHz, 123.1 MHz, 137.962-165.043 MHz, 243 MHz, 406-406.1 MHz, 457.525 MHz, 457.537 MHz and 457.55 MHz.</i></p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer – none permitted</p>
<p>Permanent Earth Station (PES)</p> <p><i>3600-4200 MHz, 5150-5250 MHz, 5725-7075 MHz, 10.7-13.25 GHz, 13.75-14.5 GHz, 17.3-20.2 GHz, 27 – 30 GHz.</i></p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer - Transfers of the rights and obligations relating to individual earth stations (“individual assignments”) where the licence covers more than one earth station.</p>
<p>Transportable Earth Station (TES)</p> <p><i>5.925-7.075 GHz, 13.78-14.5 GHz, 27.5-27.8185 GHz, 28.4545-28.8265 GHz and 29.4625-30 GHz.</i></p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer - Transfers of the rights and obligations relating to individual earth stations (“individual assignments”) where the licence covers more than one earth station.</p>
<p>Satellite (Earth Station Network)</p> <p><i>14-14.25 GHz, 27.5-27.8185 GHz, 28.4545-28.8265 GHz and 29.4625-30 GHz.</i></p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer – none permitted</p>
<p>Satellite (Earth Station) (Non-Fixed Satellite Service)</p> <p><i>137-138 MHz, 149-149.9 MHz, 2025-2110 MHz, 2200-2290 MHz, 3600-4200 MHz, 5150-5250 MHz, 5725-7075 MHz, 10.7-12.75 GHz, 27.5-27.8185 GHz, 28.4545-28.8265 GHz and 29.4625-30 GHz</i></p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer - Transfers of the rights and obligations relating to individual earth stations (“individual assignments”) where the licence covers more than one earth station.</p>
<p>Satellite (Earth Station) (Non-Geostationary)</p> <p><i>137-138 MHz, 149-149.9 MHz, 2025-2110 MHz, 2200-2290 MHz, 3600-4200 MHz, 5150-5250 MHz, 5725-7075 MHz, 10.7-13.25 GHz, 13.75-14.5</i></p>	<p>Outright</p> <p>Concurrent</p> <p>Partial transfer - Transfers of the rights and obligations relating to individual earth stations (“individual assignments”) where the licence covers</p>

<p><i>GHz, 19.7-20.2 GHz, 27.5-27.8185 GHz, 28.4545-28.8265 GHz and 29.4625-30 GHz</i></p>	<p>more than one earth station.</p>
--	-------------------------------------

Next steps

- 3.3 In order to implement our decision we will need to make regulations. Before making any regulations we are required by section 122(4) of the WT Act to give notice of our proposal to do so. We must give that notice to those we think representative of the persons likely to be affected by the implementation of the proposal, and publish notice of our proposals.
- 3.4 Under section 122(5) of the WT Act, the notice must state that Ofcom propose to make the regulations in question, set out their general effect, specify an address from which a copy of the proposed regulations or order may be obtained, and specify a time before which any representations with respect to the proposal must be made to Ofcom. That time must be at least one month beginning with the day after that on which the notice is given or published.
- 3.5 We expect to publish a consultation on our draft regulations by July 2012.

Annex 1

List of respondents

Arqiva

Maritime and Coastguard Agency (MCA)

Chamber of Shipping

General Lighthouse Authorities of the UK & Ireland