



Licence Exemption of Wireless Telegraphy Devices

Statement and further consultation

Statement &
Consultation

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Section 1

Executive summary

- 1.1 This document sets out our decisions following the 26 July 2012 consultation “Licence Exemption of Wireless Telegraphy Devices”¹ (the “2012 Consultation”). In addition, this document also consults on a further proposal to revise the current 10.577 to 10.597 GHz radio-determination allocation. This is in response to concerns raised by stakeholders regarding our proposal to close the 10.675 to 10.699 GHz band.
- 1.2 Under section 8(1) of the Wireless Telegraphy Act 2006 (the “WT Act”), it is an offence to establish, install or use equipment for wireless telegraphy without holding a licence granted by us, unless the use of such equipment is exempted. The 2012 Consultation outlined two proposals relating to the exemption of wireless telegraphy devices. These were:
 - setting a date to close the 10.675 to 10.699 GHz band after which no new Short Range Devices (SRD) will be able to be deployed. Equipment in use prior to the closure date will continue to be licence exempt. We proposed to give industry 18 months’ notice of this decision; and
 - extending the licence exemption for Mobile Satellite System (MSS) user terminals to include the 1518 to 1525 MHz, 1525 MHz to 1559 MHz, 1626.5 MHz to 1660.5 MHz and 1670 to 1675 MHz bands.
- 1.3 We received ten responses to the 2012 Consultation. These are listed in Annex 5 of this document and copies of the responses are available on our website². We have given consideration to the comments that were raised and these are addressed in Section 2 of this document.
- 1.4 Based on the responses we have received we are to go ahead with the proposal to allow the use of MSS user terminals in the new extended frequency bands. However, this is on the basis that their operation will not cause undue interference with Radio Astronomy services in the adjacent band. If we find evidence that the use of MSS in this band is affecting Radio Astronomy Services we may reconsider the basis for this exemption.
- 1.5 We will also proceed with our proposal to close the 10.675 to 10.699 GHz band to new SRD devices giving eighteen months’ notice. However, a number of stakeholders raised concerns that the proposed alternative allocation at 10.577 to 10.597 GHz was insufficient for their radio-determination needs. In light of these responses we are proposing to extend this allocation, for radio-determination applications to 10.575 to 10.6 GHz. This document is seeking views on whether stakeholders agree with this proposal.
- 1.6 Comments on the proposed extension of the 10.577 to 10.597 radio-determination allocation are invited by **5pm on 21 January 2013**.

¹ <http://stakeholders.ofcom.org.uk/binaries/consultations/wireless-telegraphy-devices-2/summary/wireless-telegraphy-device-2.pdf>

² <http://stakeholders.ofcom.org.uk/consultations/wireless-telegraphy-devices-2/?showResponses=true>

- 1.7 In order to implement our decisions from the 2012 Consultation and the proposal in this document we will need to make licence exemption regulations under section 8 of the 'WT Act. Under section 122(4) of the WT Act we must give notice of our proposals and allow one month for representations to be made. Subject to consideration of responses, we expect to consult on proposed regulations in February 2013.

Section 2

Background

Authorising spectrum use

- 2.1 We are responsible for authorising civil use of the radio spectrum and achieve this by granting wireless telegraphy licences under the Wireless Telegraphy Act 2006 (“the WT Act”) and by making regulations exempting users of particular equipment from the requirement to hold such a licence. Under section 8(1) of the WT Act, it is an offence to establish, install or use equipment to transmit without holding a licence granted by us unless the use of such equipment is exempted.
- 2.2 Under section 8(4) of the WT Act, we have to make regulations to exempt equipment if its installation or use meets the following criteria:
- is not likely to involve undue interference with wireless telegraphy;
 - is not likely adversely to affect technical quality of service;
 - is not likely to lead to inefficient use of the part of the electromagnetic spectrum available for wireless telegraphy;
 - does not endanger safety of life;
 - does not prejudice the promotion of social, regional or territorial cohesion; and
 - does not prejudice the promotion of cultural and linguistic diversity and media pluralism.

2012 Consultation

- 2.3 In the 2012 Consultation, we proposed to amend arrangements for equipment which is already subject to licence exemption. These were:
- giving eighteen months’ notice of the closure of the 10.675 to 10.699 GHz band (the “10.68 GHz band”) after which no new Short Range Device (SRD) devices will be able to be deployed. Equipment in use prior to the closure date will continue to be licence exempt; and
 - extending the licence exemption for Mobile Satellite System (MSS) user terminals to include the 1518 to 1525 MHz (an MSS down-link allocation) and 1670 to 1675 MHz bands (an MSS up-link allocation).

Responses to the 2012 Consultation

- 2.4 We received ten non-confidential responses to the consultation. The responses and our comments are summarised below under the headings of the questions posed in the consultation.

Closure of the 10.675 to 10.699 GHz band

Question 1) Do you agree with Ofcom's proposal to give an 18-month notice period for the closure of the 10.68 to 10.7 GHz band to new SRD deployments?

- 2.5 Overall there was no disagreement concerning the closure of the band. However the UK Space Agency and Met Office wished for the notice period to be shorter than the eighteen months proposed in the 2012 Consultation. In addition the UK Space Agency stated that manufacturers should be strongly encouraged to cease using the band and should be incentivised to replace existing devices.
- 2.6 Although we appreciate these concerns, as advised in the 2012 Consultation we need to give sufficient time in order for manufacturers of existing equipment to change their products and dispose of any existing stock. For this reason we believe that the proposed eighteen month time period should remain.
- 2.7 The issue of incentivising users to clear the band was addressed in paragraphs 3.7 to 3.10 of the 2012 Consultation. Our conclusion was that we did not believe that the cost of clearing the band of 10.68 GHz equipment immediately and replacing it with equipment in an alternative band would be proportionate to the benefits it would bring to Radio Astronomy. In addition given the nature of the equipment it would be difficult to implement such a proposal.
- 2.8 The Low Power Radio Association (LPRA) advised that although they had no objection to the closure of the 10.68 GHz band they advised that this should not happen until an adequate alternative frequency can be made available to them. BEAMA LTD, LPRA and others advised that the alternative frequency of 10.597 to 10.977 GHz (the "10.5 GHz band") highlighted in the 2012 Consultation was insufficient for their needs. They explained that in order to avoid interference, when a number of sensors work in close proximity to each other, they need to operate on a number of sub-bands with a spacing of between 7 to 8 MHz.
- 2.9 In light of these responses we have investigated the possibility of providing additional spectrum in order to overcome this issue. After consideration we believe that it may be possible to extend the 10.5 GHz band by a further 5 MHz in order to ensure that the functionality of the existing 10.68 GHz band radio-determination equipment can be maintained. Section 3 of this document sets out our proposal in greater detail.
- 2.10 BEAMA Ltd and other respondents requested that the UK align with other European countries as the current 10.68 GHz band allocation is unique to the UK. Most responses from the SRD industry asked for additional spectrum in either the 9500 to 9975 MHz or 10.5 to 10.6 GHz with a minimum bandwidth of 40 MHz. LPRA asked for us to allocate the band 10.5 to 10.55 GHz for this use. All respondents advised that harmonisation would simplify their product offering allowing them to be more competitive in Europe and lower costs to UK consumers as a result of economies of scale.
- 2.11 As advised in paragraph 2.9 we have taken onboard the comments received and are proposing to extend the current 10.58 GHz allocation to match the bandwidth of 25 MHz at 10.68 GHz. We note that this would closer align with Europe but not provide the additional bandwidth requested. Although we acknowledge the requests for additional spectrum, further extension of the allocation below 10.575 GHz is not possible as the band 10.475 to 10.575 GHz was awarded in 2007 and therefore this proposal cannot be considered at this time. The alternative allocation at 9500 to 9975 MHz is not civil spectrum in the UK and is used by the Ministry of Defence (MoD).

Any access to these bands would require their prior agreement. We will discuss this matter with the MoD to see whether it is possible to share this spectrum.

Our decision

- 2.12 Based on the responses received we are to close the band to new equipment giving eighteen months' notice of our decision. This period will commence from the date of the new regulations coming into force. However, this is on the basis that the proposals set out in Section 3 of this document regarding the extension of the 10.597 to 10.977 GHz band are also implemented.

Licence exempt MSS user terminals

Question 2): Do you agree with Ofcom's proposal to licence exempt MSS user terminals operating in the 1518 to 1525 MHz and 1670 to 1675 MHz bands?

- 2.13 The UK Space Agency supported our proposal for licence exemption of MSS terminals in the bands 1670 to 1675 MHz (uplink from terminal) and 1518 to 1525 MHz (downlink to terminal). The Met Office also supported our proposal, and mentioned the use of their radiosondes in the adjacent band, but gave no other comments. This matter was covered in Annex 7.15 of the 2012 Consultation.
- 2.14 We received specific comments from the Programme Making Special Events (PMSE), Radio Astronomy Service (RAS) communities and Inmarsat (a MSS service provider). The specific comments on the MSS licence exemption proposal touched upon the following topics:
- work by the European Conference of Postal and Telecommunications Administrations (CEPT) on the development of a Report in response to the European Commission's (EC) mandate "on technical conditions regarding spectrum harmonisation options for wireless radio microphones and cordless video-cameras (PMSE equipment)"³;
 - CEPT Reports and Decisions on MSS relevant to our proposal;
 - continued access and use of PMSE in the band 1518 to 1525 MHz;
 - PMSE interference to MSS terminals;
 - Radio Astronomy use of the band 1668 to 1670MHz - MSS operations in this band is not allowed;
 - potentially, unwanted emissions of MSS equipment may fall into the adjacent Radio Astronomy allocation 1660 to 1670 MHz;
 - operations of MSS terminal near Radio Astronomy sites: MSS transmission disable function; and
 - MSS user equipment characteristics: – Maximum equipment e.i.r.p. and Interface Requirements.

³ Report A on the technical conditions for the use of the bands 821-832 MHz and 1785-1805 MHz for wireless radio microphones in the EU, including the technical conditions which can contribute to facilitate the PMSE equipment for EU-wide operations. Some technical conditions are not yet finalised and these are awaiting resolution of further studies.
ECC(12)INFO03 - CEPT

- 2.15 Inmarsat supported our proposal to extend licence exemption to MSS in the “extended L-band” frequencies 1518 to 1525 MHz and 1670 to 1675 MHz. Inmarsat stated that their current services have operated in the adjacent/nearby frequency bands for many years (i.e. 1525 to 1559 MHz and 1626.5 to 1660.5 MHz) and their new Alphasat satellite, to be launched early 2013, will also allow operation of MSS terminals in the extended L-band frequencies.
- 2.16 The PMSE community, through the British Entertainment Industry Radio Group (BEIRG), expressed concerns regarding the impact on and maintenance of access to a sufficient quantity of interference-free spectrum. Brian Copsey provided a reply of a similar nature.
- 2.17 The UK Radio Astronomy stakeholders indicated a concern with any proposal that would directly affect their operations. They reminded Ofcom that Radio Astronomy research is concerned with naturally occurring phenomena; they cannot move their observation frequencies as these are fixed.

Impact on PMSE

- 2.18 In response to our proposal BEIRG advised they were extremely concerned about permitting the use of MSS terminals in the 1518 to 1525 MHz band. They advised that this could result in the exclusion of PMSE from this band. They concluded that it is unwise for Ofcom to allow the implementation of MSS operations in this band without considering PMSE use. They also stated that until the PMSE industry has been reassured that they will have sufficient spectrum for their long term needs we should be not authorise the use of MSS handsets in 1518 to 1525 MHz.
- 2.19 The 2012 Consultation explained that the licence exemption proposal in the band 1518 to 1525 MHz is for the downlink part of the MSS system, i.e. the handset receive frequency. These transmissions are from a satellite so the interfering power on the Earth’s surface is very small. Paragraphs 4.11 to 4.13 and Annex 7 (technical assessment of MSS operation in the frequency band 1518 to 1525 MHz) of the 2012 Consultation addressed the impact of MSS use on PMSE and PMSE on MSS. We concluded that MSS downlink transmissions from a satellite would not affect PMSE use of the band. We have not changed our view based on the responses received and we believe that we fully considered PMSE use in our consultation.
- 2.20 BEIRG and Brian Copsey highlighted the work being undertaken in CEPT and suggested that the whole of the L-Band should be harmonised across Europe for dedicated PMSE use. They noted that availability of UHF frequencies for PMSE is reducing and that L-Band frequencies have been suggested to be a potential target for harmonised of PMSE services, and that CEPT reports have highlighted a way for using this band in a harmonised way across Europe. BEIRG advised that before permitting MSS use in the band Ofcom should wait for the outcome of the report from the CEPT Working Group FM PT51. They also commented that they hoped that Ofcom is taking part in the European discussions on the future harmonisation of the 1.8 GHz band for PMSE.
- 2.21 The decision concerning the use of MSS operation in these bands has already been decided by CEPT. It published ECC Decision (12)01 “Exemption from individual licensing and free circulation and use of terrestrial and satellite mobile terminals operating under the control of networks” (the “ECC Decision”) on 1 June 2012⁴. This is a generic decision on mobile and satellite use, which incorporates the earlier

⁴ Available at <http://www.ero-docdb.dk/Docs/doc98/official/pdf/ECCDEC1201.PDF>

satellite ECC Decision (04)09, on licence exemption and free circulation for MSS in the bands 1518 to 1525 MHz and 1670 to 1675 MHz. The ECC Decision follows on from previous decisions made at the ITU World Radio Conferences (WRC) 2003 and 2007 to finalise the work in allowing the use of these bands for the new extended MSS L-band allocations. Our proposal follows on from many years of UK, international and European co-ordination, which resulted in the shared allocation for MSS and terrestrial services in these bands.

- 2.22 Ofcom is actively involved in the in the European discussions on PMSE use (e.g. through CEPT WGFM Project Team 51 and other working groups). The FM51 committee work and any resultant decisions are for entirely different frequency bands than those in our proposal. This work is in response to an EC mandate on PMSE use as a result of an outcome from the WRC in 2012. This was to study, for the next WRC in 2015, the possibility of allocating the band 694 to 790 MHz for Mobile Services in ITU Region 1⁵. As our proposal does not relate to the bands under study in the report being developed by FM 51, we do not believe that this is a reason to delay authorising the use of MSS in the 1518 to 1525 MHz (MSS downlink) and 1670 to 1675 MHz (MSS uplink) frequency bands.
- 2.23 BEIRG also commented that the 1.8 GHz band is not available throughout the UK and is only available for fixed site licences.
- 2.24 We took this comment to suggest that Ofcom should look at reconsidering the licensing arrangements for this band. The band 1785 to 1800 MHz is available for PMSE use with the exception of Northern Ireland. The lack of availability in Northern Ireland is a result of the 1785 to 1805 MHz band being awarded in 2007⁶. A corresponding process to award the band was also undertaken by Comreg in Ireland. The requirement for fixed site licences rather than a general UK licence is needed in order to protect other users operating in the band. We have no proposals to change this arrangement at present.
- 2.25 Inmarsat in their response noted that for this shared band, PMSE has the potential to cause interference to receiving MSS earth stations. Given this perceived risk, they requested that Ofcom minimise the use of the band 1518 to 1525 MHz for PMSE by giving preference to the operation of PMSE in other frequency bands.
- 2.26 We had noted in paragraph 4.14 of the 2012 Consultation that there was a potential interference scenario to the MSS terminal receivers from PMSE operations. We explained that given the expected low density and random deployment of MSS terminals this would mean that any such interference from PMSE would be very unlikely. In addition, we made it clear that MSS terminals would be operating on a licence-exempt basis. Users of licence-exempt devices need to be aware that there are no guarantees that the spectrum will be free of interference and devices operate on a non-interference non-protection basis. This means that no claim of protection can be made if interference is received from another authorised device or service. Therefore we will continue to authorise the use of PMSE in this band.

MSS impact on Radio Astronomy

- 2.27 UK Radio Astronomy stated in their response that they cannot operate effectively with levels of interference that would be tolerable in commercial systems,

⁵ Region 1 – ITU Map <http://life.itu.int/radioclub/image/regmap.gif>

⁶ http://stakeholders.ofcom.org.uk/spectrum/spectrum-awards/awards-archive/completed-awards/award_1785/

consequently its coexistence with other services in adjacent and shared bands needs careful management. Their radio astronomical observations are often coordinated worldwide (this occurs when the RAS link foreign and UK sites to achieve greater resolution and sensitivity, called Very Long Baseline Interferometry, it maximises the possible collecting area as well the maximum angular resolution). The bands of specific concern to the RAS were those immediately adjacent to their allocations at 1660.0 to 1660.5 MHz, 1660.5 to 1668.0 MHz and 1668 to 1670 MHz, all of which are of considerable importance to the UK-RAS.

2.28 They also advised that in the UK they operate under the grant of Recognised Spectrum Access (RSA), where Ofcom has a duty to take into account the existence of the RSA holder in the same way it would in respect of a licence. Each RSA has agreed spectrum quality bench marks (SQB are interference limits) for the different bands in operation at UK RAS sites. They considered that they can only agree to the proposal under the condition that Ofcom afford adequate protection to observatories from the inevitable increase in the general background interference levels that our proposal would fuel. This interference may be potentially caused by:

- the uncontrolled proliferation and use of MSS handsets transmitting in the 1670 to 1675 MHz band;
- possible operation near to UK radio observatories; and
- any unwanted emissions that fall into the RAS bands, particularly those immediately adjacent to 1660.0 to 1660.5 MHz, 1660.5 to 1668.0 MHz and 1668 to 1670 MHz bands.

2.29 We acknowledge that the operation of RAS in the UK is covered by an RSA. This grants them protection and Ofcom has a duty of care regarding this. However, the SQB limits in an RSA only apply in relation to in-band sharing/coordination with other users using the same frequency. Our proposal did not relate to bands covered by an RSA but adjacent services and therefore the SQB limits are not directly applicable to this consultation.

2.30 In addition to the SQB limits in an RSA we also need to ensure that services do not interfere with an adjacent users. We have considered the statement from the RAS that there will be an inevitable increase in interference due to the licence exemption of MSS in the band 1670 to 1675 MHz mainly due to the uncontrolled proliferation use of MSS. We see no reason why this should be the case as MSS has operated in other adjacent bands for a number of years without any reported adverse affects. We are aware that RAS sites have previously suffered interference from a Non-Geostationary Orbit MSS (non-GSO) operating within the band 1610 to 1626.5 MHz. However, a European and UK investigation into this found the cause to be the secondary allocation downlink satellite transmission of that Non-GSO system and not the primary allocation for MSS terminal uplink transmissions.

2.31 UK Radio Astronomy advised that the updated ETSI standards EN 301 444 and 301 681 have a clause quoting a requirement to implement functionality that would enable the disabling of a MSS terminal operating near RAS sites. The RAS community therefore suggested that Ofcom should include appropriate usage restrictions for specific geographic locations (and/or frequencies) near to RAS sites. This would recognise the potential for interference to RAS operations because of the permitted levels of unwanted emissions given in the ETSI harmonized standards. They commented that they believed the inclusion of such restrictions should have no financial implications for MSS operators.

- 2.32 The updated ETSI standards for these MSS terminals, EN 301-444 and EN 301-681 accommodate the new MSS band in our proposal. While ETSI has slightly re-structured the unwanted emissions limit tables in the new standards, the limit values in the new band are extremely similar to those of the existing MSS terminals already adjacent and operating near or overlaying the bands 1610 to 1626.5 MHz and 1626.5 to 1660.5 MHz where RAS conduct observations (1610.6 to 1613.8, 1613.8 to 1626.5, 1660.0 to 1660.5 MHz and 1660.5 to 1668 MHz). These existing terminals have been licence-exempt for many years with no reported adverse affects caused to the RAS.
- 2.33 The disabling clause in the ETSI standard is there for MSS terminals that operate in the band 1668 to 1670 MHz. This control is to protect the listed radio astronomy sites in the ITU Master International Frequency Register (MIFR). The implementation of a switch off capability requires satellite operator's terminals, to have a suitably accurate determination of where their terminals are located. How an operator achieves this is not prescribed in the standard or elsewhere. However, it was agreed by CEPT that MSS services would not operate in the 1668 to 1670 MHz band in Europe.
- 2.34 We do not believe that the addition of a usage restriction at this time is warranted and proportionate. As explained above, we, consider it would be extremely rare for an MSS terminal to be near an RAS site, if at all. As there is a very low probability of undue interference occurring we do not believe there is a need to propose usage restrictions for specific geographic locations (and/or frequencies). The implementation of an additional usage restriction could lead to a significant limitation of possible MSS access to the band 1670 to 1675 MHz over and above the 2 MHz (1668 to 1670 MHz) already excluded from MSS operation. With such a restriction there is a potential loss of efficiency and opportunity for MSS operators in the use of the radio spectrum. If an issue were ever to arise, as the ETSI standard includes the location switch off clause, we would expect MSS terminals and the satellite network would have procedures to allow a quick and effective way of switching off or mitigating any problem.
- 2.35 Therefore, we conclude that it is not necessary to revise our proposal to permit MSS use in the 1670 to 1675 MHz band. In support of our reasoning for licence exemption, as stated in section 4.17 of the 2012 Consultation, we continue to expect that there will be a low density of operation of MSS terminals in the UK. Therefore it would be an extremely rare occurrence that an MSS terminal would be near to the location of an RAS site, such that it would cause interference.
- 2.36 It should be noted that if the general out of band interference environment from MSS terminals towards RAS sites did appear to change we would investigate these reports. If necessary we might consider applying a regulatory provision to protect RAS. However, we do not expect to need to do this due to the existing and successful examples of the operation of licence-exempt MSS terminals in bands adjacent to the RAS.

Interface Requirements 2016

- 2.37 Inmarsat commented on an inconsistency in section 4.7 of the 2012 Consultation, where it proposes to limit the transmit power density to 37 dBW e.i.r.p., whereas the maximum transmit power density e.i.r.p, shown in Annex 6, is 33 dBW for equipment conforming to EN 301 444, and is 15 dBW e.i.r.p. for equipment conforming to EN 301 681. For equipment conforming to EN 301 444, Inmarsat would be content with a maximum transmit power of 33 dBW e.i.r.p.

- 2.38 Inmarsat also commented that ETSI standard EN 301 426 for low data rate terminals is referenced in the current IR 2016 and they propose that reference to this standard should be retained in the new IR 2016, in addition to the proposed references to EN 301 444 and EN 301 681. Terminals compliant with the EN 301 426 standard will continue to operate in the band 1525-1559 MHz and 1626.5-1660.5 MHz.
- 2.39 We recognise that the existing UK IR 2016 e.i.r.p. power exceeds the maximum power expressed in the revised standard (it previously had no maximum e.i.r.p. quoted). We do not plan to change the existing 37dBW e.i.r.p. limit in IR 2016. This is because there are already licence-exempt MSS terminals operating up to those limits in the UK.
- 2.40 Inmarsat objected to the remark in IR 2016 that “Ofcom may impose additional restrictions on the maximum power used for specific frequencies and locations”. The remark is not in the current version of IR 2016 and hence they questioned whether it is needed in the proposed new version. As far as Inmarsat were aware no additional constraints are necessary and it is not clear how any constraints could be applied except through a future modification of IR 2016. They commented that the remark may therefore not be necessary and should be reviewed.
- 2.41 We acknowledge that there are currently no additional restrictions that are being applied to MSS operating in the band 1670 to 1685 MHz. We do not plan to remove this comment from the IR. This is because, although unlikely, if general changes do occur in the interference environment towards RAS then we would investigate this to determine whether there was a need to amend the authorisation and, if necessary, impose additional restrictions.

Our decision

- 2.42 From the responses received and our understanding of the questions and concerns expressed, we can find no reason why we should not licence-exempt MSS in the bands 1518 to 1525 MHz (downlink) and 1670 to 1675 MHz (uplink). However, if the situation changes in the future and if there are undue interference issues we will investigate these and will take appropriate actions to resolve the issue. Therefore we are to go ahead with our proposal as set out in the 2012 Consultation and licence-exempt these devices.
- 2.43 There were concerns that licence exemption of MSS would exclude PMSE from the 1518 to 1525 MHz band. We can confirm that there were no proposals in our 2012 Consultation, nor do we set out in this statement, any restriction or limitation of access to the band for PMSE use.

Section 3

Proposal to extend the 10.5 GHz radio-determination allocation

- 3.1 As outlined in section 2 of this document a number of respondents to the 2012 Consultation advised that the proposed alternative allocation for radio-determination applications in the 10.577 to 10.597 GHz band did not provide sufficient bandwidth to meet their operational needs.
- 3.2 We have identified a possibility to extend the current exemption for radio-determination applications at 10.577 to 10.597 GHz in order to meet industry concerns. This we propose to do by extending the current exemption by 5 MHz to 10.575 to 10.6 GHz. All other existing requirements for operation in the 10.5 GHz band are to remain the same. Table 1 outlines the proposed exemption criteria.

Table 1: Proposed 10.575 to 10.6 GHz SRD exemption requirements

| Application | Frequency Band | Transmit power | Relevant harmonised Standard |
|----------------------------------|--------------------|----------------|------------------------------|
| Radio Determination applications | 10.575-10.6000 GHz | 1 W e.i.r.p. | EN 300 440 |

- 3.3 This additional 5 MHz of bandwidth gives a total of 25 MHz, which exceeds the 24 MHz bandwidth available in the current 10.675 to 10.699 GHz allocation that we are to close to new assignments. Although we appreciate that this measure does not meet the requests from industry of between 30 and 55 MHz of continuous bandwidth, it does mean that current 25 MHz devices can be adapted to operate in the new band without significant redesign. It was noted that the current UK allocation at 10.675 to 10.699 GHz was unique and therefore we believe that this change should not impose significant additional costs to industry.
- 3.4 In addition the proposal should allow for equipment based on the new 25 MHz bandwidth to be used in other European countries that currently permit this type of use between 10.5 to 10.6 GHz. This should help manufactures to gain benefits from some economies of scale. However, we do note that equipment in these countries would have the benefit of additional bandwidth.
- 3.5 In respect of compatibility to the adjacent services above and below the 10.575 to 10.6 GHz band, the EN 300 220 requires that a particularly low level of unwanted emissions are permitted. The permitted unwanted emissions in the spurious domain are detailed in section 7.3 of the relevant Harmonised standard. This low level of unwanted emission is further enhanced by the typical operating scenario of radio-determination devices which are typically used in buildings e.g. door openers and motion sensors. Ofcom does not therefore consider there to be a likelihood of interference by the extension of SRD allocation from 10.577 to 10.597 GHz to 10.575 to 10.6 GHz. Further, given that this allocation replaces the 10.675 to 10.699 GHz allocation, the emissions seen in bands designated as quiet bands by the ITU-R should see a significant reduction in emissions from SRD.

- 3.6 As this proposal was not included in our 2012 Consultation, in line with Ofcom's consultation principles, we are to seek comments from stakeholders. As this is a minor modification to an existing licence exemption provision we believe that a shorter period of five weeks is sufficient for stakeholders to provide comments on our proposal.
- 3.7 Although primarily a civil band the MoD also has access to the 10.5 to 10.6 GHz for military low power devices and Doppler radar. We therefore have consulted with them on this proposal and they are content with our proposals.
- 3.8 Once the consultation period has closed we will review the responses. If there are no significant objections to the new proposal we will include the extension of the 10.577 to 10.597 GHz band in our draft regulations.

Question 1): Do you agree with Ofcom's proposal to extend the current 10.577 to 10.597 GHz radio-determination allocation to 10.575 to 10.6 GHz?

Annex 1

Responding to this consultation

How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 21 January 2013**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://stakeholders.ofcom.org.uk/consultations/licence-exemption-wireless/>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email paul.chapman@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Paul Chapman
Spectrum Policy Group
Riverside House
2A Southwark Bridge Road
London SE1 9HA
- A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Paul Chapman on 020 7981 3069.

Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.

- A1.9 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A1.10 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/account/disclaimer/>

Next steps

- A1.11 Following the end of the consultation period, Ofcom intends to publish a statement in January 2013.
- A1.12 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: http://www.ofcom.org.uk/static/subscribe/select_list.htm

Ofcom's consultation processes

- A1.13 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.14 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A1.15 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Graham Howell, Secretary to the Corporation, who is Ofcom's consultation champion:

Graham Howell
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Tel: 020 7981 3601

Email Graham.Howell@ofcom.org.uk

Annex 2

Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

Annex 3

Consultation response cover sheet

- A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, www.ofcom.org.uk.
- A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.
- A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at www.ofcom.org.uk/consult/.
- A3.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don't have to edit your response.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing

☐

Name/contact details/job title

☐

Whole response

☐

Organisation

☐

Part of the response

☐

If there is no separate annex, which parts?

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

☐

Name

Signed (if hard copy)

Annex 4

Consultation question

Question 1): Do you agree with Ofcom's proposal to extend the current 10.577 to 10.597 GHz radio-determination allocation to 10.575 to 10.6 GHz?

Annex 5

Responses

BEAMA

British Entertainment Industry Radio Group (BEIRG)

Brain Copsey

Inmarsat

Low Power Radio Association (LPRA)

Met Office

Name withheld 1

Name withheld 2

UK Radio Astronomy

UK Space Agency