



**BBC response to Ofcom's statement and
consultation: *'Improving consumer access to
mobile services at 3.6 to 3.8 GHz'***

22 September 2017

Overview

1. The BBC welcomes the opportunity to respond to Ofcom's statement and consultation 'Improving consumer access to mobile services at 3.6 to 3.8 GHz'. This submission should be read in conjunction with our response to Ofcom's previous consultation on the same matter published in October 2016¹ as well as our response to Ofcom's call for inputs, '3.8 to 4.2 GHz: Opportunities for Innovation'.²
2. We note Ofcom has confirmed its intention to expand spectrum access for mobile services in the 3.6 to 3.8 GHz band and is consulting on the approach to withdrawing access to this spectrum for existing users.
3. As Ofcom will be aware from our previous consultation responses, the BBC has a range of interests in this spectrum. Specifically:
 - **BBC Monitoring:** As part of the BBC's News division, Monitoring helps the BBC remain a world leader in covering global news and events, providing access to footage from TV channels around the world for the UK and global audiences. It also provides services to a range of clients and a recent Select Committee report confirms the work of BBC Monitoring is "of vital interest" to parts of Government.³ The use of 3.6 to 3.8 GHz by BBC Monitoring⁴ is grants of Recognised Spectrum Access (RSA) for Receive Only Earth Stations (ROES) for our sites at Caversham and Crowsley Park.
 - **World Service Group and BBC Worldwide:** Globally, the BBC's World Service Group (WSG)⁵ and BBC Worldwide, with their combined weekly global audience of 372 million people⁶, currently rely on spectrum elsewhere in C-band as well as Ku and Ka bands for the creation and distribution of multi-media, multilingual content to audiences across the world.
 - **Future mobile use:** The BBC also has an interest in mobile distribution technologies. We are contributing to the development of mobile standards today so that mobile can more easily meet the growing needs of viewers to access the content they want, whenever they want, wherever they are. For example, we have ongoing engagement with 3GPP and other industry and international forums. These contributions to future mobile technologies which have the potential to deliver content to licence fee payers in new ways.

¹ [BBC's response to Ofcom's 3.6 to 3.8 GHz consultation](#) (December 2016)

² [BBC's response to Ofcom's Call for Inputs on 3.8 to 4.2 GHz](#) (June 2016)

³ http://www.publications.parliament.uk/pa/cm201617/cmselect/cmfa/732/73205.htm#_idTextAnchor009

⁴ BBC Monitoring tracks open source media from around the world in multiple languages in order to understand and explain international news and views. Detail about how BBC Monitoring's work is used in newsgathering was provided to Ofcom in our December 2016 response.

⁵ WSG includes World Service, BBC World News, bbc.com, BBC Media Action and BBC Monitoring.

⁶ <http://www.bbc.co.uk/mediacentre/latestnews/2017/global-audience-measure>

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4. We therefore recognise that, in the UK, this spectrum is important for meeting demand for mobile data and enabling 5G. However, we have specific concerns about Ofcom's proposals for implementation of the release plan in respect of:
 - The notice period provided for withdrawing access 3.6 to 3.8 GHz;
 - The potential for continued access to some services in the 3.6-3.8 GHz band; and
 - The approach to coexistence between new mobile services at 3.6 to 3.8 GHz and incumbents operating above 3.8 GHz.

Answers to questions in Ofcom's consultation

Question 1: Do you agree with our proposed approach towards registered fixed link and satellite earth stations users of the 3.6 to 3.8 GHz band?

5. Ofcom's decision will remove a third of the spectrum available for C-band operations in the UK and will have a material impact on BBC Monitoring operations. It will remove the flexibility required for BBC Monitoring to receive sources wherever they broadcast between 3.6 to 3.8 GHz and comes on top of the forthcoming release of spectrum between 3.4 and 3.6 GHz which will already reduce BBC Monitoring's operational capabilities.
6. Ofcom state (paragraph 7.21) that "the majority" of services provided in 3.6 to 3.8 GHz could be provided elsewhere and suggests that ROES operators would "have to adjust to an expectation of lower spectrum quality as a result of mobile use in the band" (paragraph 7.45). The BBC's uses do not fall into this majority and we want to emphasise again to Ofcom that it would not be possible for BBC Monitoring to continue to operate "on a licence-exempt basis" as this could not ensure continuity of services for both the BBC's own newsgathering and for BBC Monitoring's external clients.
7. Ofcom's proposed approach towards incumbent users would mean the BBC's use would no longer be taken into account for Ofcom's frequency management purposes from June 2020. In practice, this means that BBC Monitoring could no longer guarantee that required sources would be available to news programme makers and BBC clients. This means that mitigations for ongoing reception of sources between 3.6 and 3.8 GHz would need to be put in place by that date. This is a considerably shorter period than we have been anticipating.
8. We note that this is because Ofcom present this change as a *variation* of the RSA for ROES held by the BBC and other satellite earth station operators and are proposing a notice period of just three years. This is two years short of the five year notice period that the licence holder would expect if the RSA were *revoked*.
9. Indeed, Ofcom's May 2011 consultation on RSA for ROES stated that the proposed term was an annually renewable grant with a five year revocation period.⁷ BBC Monitoring have invested in grants of RSA for ROES across 3.6 to 4.2 GHz since November 2012 on that basis, and around 75% of the C band services received by BBC Monitoring are currently in the band 3.6-3.8 GHz. Because Ofcom's proposed approach means removing these frequencies from the RSA, the effect of this change for the BBC is closer to a licence revocation than it is a licence variation. This is because unlike with a licence variation, monitoring of sources between 3.6 and 3.8 GHz will no longer be possible in other parts of the band. We would therefore ask Ofcom to consider the impact on the BBC use of this band of this shorter proposed notice period.

⁷ [Ofcom consultation](#), 'RSA for ROES in the Bands 1690-1710 MHz, 3600-4200 MHz and 7750-7850 MHz' May 2011, para 4.42

Possibility of co-existence post-release

10. We recognise and welcome Ofcom's openness in examining "potential future mobile restriction zones around satellite earth stations".⁸ However, this form of co-existence would not be a feasible long-term solution for BBC Monitoring operations in 3.6 to 3.8 GHz.
11. As Ofcom will be aware from our previous responses, BBC Monitoring has no control over the frequencies used by other broadcasters. Therefore, the flexibility to access services across 3.6 to 4.2 GHz is essential in order to receive the required national and international satellite television and radio broadcasts and to be able to adjust when they change.
12. Nevertheless, we appreciate the opportunity to explore from a technical point of view whether there is potential for ongoing reception of a limited number of key sources post-mobile roll-out as a result of Ofcom applying localised restrictions in mobile licences in line with the principles discussed in the statement.

Implications of 3.6 to 3.8 GHz release for ongoing operations above 3.8 GHz

13. We do however strongly disagree with Ofcom's current approach to the question of co-existence between new mobile services being rolled out in 3.6 to 3.8 GHz and ongoing operations above 3.8 GHz (as set out in Ofcom statement, paragraphs 7.56 to 7.59.)
14. In particular, we note Ofcom's statement that "any additional coexistence impacts with operations in the 3.8 to 4.2 GHz band as a result of future mobile deployments at 3.6 to 3.8 GHz under option B will be limited compared to the additional benefits which option B would deliver"⁹, but that the statement offers no clarity on what those coexistence impacts are. We note that Ofcom will be undertaking "further technical analysis"¹⁰ on co-existence between mobile services below 3.8 GHz and incumbent services above 3.8 GHz,
15. This is clearly concerning for incumbents who face the prospect of further degradation of operations above 3.8 GHz as a result of mobile operations between 3.6 and 3.8 GHz.
16. Therefore, we would be concerned if decisions taken about mobile operations in the band 3.6-3.8 GHz were to further impact operations of incumbents above 3.8 GHz, either by excessive out-of-band emissions or desensitisation of receivers by high levels of signal in adjacent channels.
17. We would therefore strongly encourage Ofcom to consult stakeholders on both the analysis they undertake and the proposed outcome.

⁸ [Ofcom statement](#), paragraph 7.73 as discussed further in paragraphs 8.15 to 8.20.

⁹ *Ibid.*, paragraph 7.58

¹⁰ *Ibid.*, paragraph 7.59

Uncertainty about the future of 3.8 to 4.2 GHz

18. We note the decision on 3.6 to 3.8 GHz is being made ahead of recommendations about the future use for of the 3.8 to 4.2 GHz band for 5G. This introduces significant and regretful regulatory uncertainty about the future of satellite services in this band following Ofcom's call for input earlier this year about the potential for satellite services sharing 3.8 to 4.2 GHz with other users.

19. The BBC's concern is that to properly consider the costs and benefits of any mitigation options (e.g. relocating satellite operations), we need to understand how the whole of C-band (from 3.6 to 4.2 GHz) will be used in the future. Any such decisions taken based solely on the future use of 3.6-3.8 GHz may be undermined by the later need for further mitigations in 3.8-4.2 GHz as well. We would welcome clarity from Ofcom about future plans and timescales for decision-making on the 3.8-4.2 GHz band as soon as possible.

ENDS.