

# **BBC response to the Ofcom consultation on Optimal use of 3.9GHz Spectrum – Additional option to change the frequency of UK Broadband's 3.9GHz licence**

24 February 2025

## **Introduction**

The BBC is grateful for the opportunity to comment on Ofcom's proposals for this additional option to change the frequency of UK Broadband's 3.9GHz licence. The frequency range 3.8-4.2GHz, within which the 3.9GHz band falls, is vital to the operations of the BBC and that will continue to be the case.

As noted in the consultation the BBC advocated for this change in its response to the previous consultation and welcomes Ofcom revisiting it. The BBC agrees with Ofcom that this change would deliver more efficient use of spectrum for the reasons set out. These include increasing the amount of useable spectrum for Shared Access users given fewer boundaries with high power users and reducing fragmentation of the 3.8-4.2GHz band to permit Shared Access users greater access to higher bandwidth channels.

The BBC response to the previous consultation set out its reliance on the 3.8-4.2GHz band in two areas. The first is continued protection of its satellite Receive Only Earth Stations (ROES) in the UK. The second is in increasing use of the band for low and medium power 5G Private Networks used for Content Production, enhancing live news and events coverage.

Ofcom have modelled the impact of the proposed change on incumbent users. The modelling indicates that only 95 (0.4%) of the 25,000 H3G assignments need to be removed or modified to ensure continued protection of Satellite Earth Stations. A further 6% of assignments will need modification to protect existing Fixed Links. The BBC agrees with Ofcom that it is therefore reasonable for H3G to implement these changes, especially given H3G's preference for this frequency move and the beneficial cost savings to them.

Ofcom considers in 3.23 whether Fixed Links should remain in the 3.8-4.2GHz band given availability in alternative higher frequency ranges. As long as Fixed Links remain in the band, they limit the geographic availability of 3.8-4.2GHz for mobile networks. The Ofcom Mobile Data Strategy<sup>1</sup> evidences increasing demand for mobile data in 3.8-4.2GHz which includes by Shared Access Licensees. The 'Review of the use of fixed wireless links and spectrum implications'<sup>2</sup> also notes that the total number of links has declined substantially in recent years but the average channel bandwidth used by fixed links has increased.

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<sup>1</sup> <https://www.ofcom.org.uk/siteassets/resources/documents/consultations/uncategorised/7997-mobile-data-strategy/associated-documents/secondary-documents/update-strategy-mobile-spectrum.pdf?v=334620>

<sup>2</sup> <https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-1-10-weeks/270182-call-for-input-review-of-the-use-of-fixed-wireless-links-and-spectrum->

The BBC would therefore support the removal of Fixed Links from 3.8-4.2GHz into more suitable bands with greater capacity. This would facilitate better geographical access for mobile services including 5G Private Networks used for Content Production.

For existing 5G Private Networks licensed by the BBC there are no difficulties anticipated in equipment vacating 3800-3884MHz, and it should continue to operate with no difficulty in the remainder of the band. The proposed H3G licence changes will therefore have minimal impact on Shared Access Licensed Private Networks operated by the BBC.

The Technical Update on the impact of the proposed technical change to the H3G 3.9GHz licence is noted. The analysis uses the proposed emission mask for H3G services and the Shared Access receiver selectivity derived from 3GPP TS 38.104. This receiver selectivity does however match our deployments where we already employ channel filtering to improve on the ACS. In our experience, channel filters are essential in the presence of adjacent high power public networks. Given our improved receiver performance we would expect to see a more significant impact on the performance of our 5G Private Networks in comparison to that than indicated in Ofcom's Technical Report as a result of the technical changes to the H3G services.

The BBC appreciates Ofcom's reassurance, in the Technical Update, that there would be no risk to Satellite Earth Stations as a consequence of the proposal to take account of the new emission limits as part of the coordination process. However, the BBC notes that Ofcom's proposals would result in an increase in the noise floor of the band, and that Ofcom's proposed modified permitted frequencies - 3800-3884 MHz – are within the range identified in the BBC's Crowsley Park RSA. We therefore seek confirmation that, as a consequence of any changes resulting from this consultation process, the single entry interference level of this earth station, as recorded in Schedule 1 of the RSA (-161 dBW/MHz), will not be exceeded. More generally, it is the BBC's position that no additional constraints should be placed upon BBC-operated satellite ROES in the UK, registered with Ofcom through RSA, as a result of these proposals. ROES protection is required at current levels on an ongoing basis.

**Question 1:** Do you have any views on the additional option we outline to change the frequencies permitted under the 3.9 GHz licence from 3925-4009 MHz to 3800-3884 MHz?

The BBC support the additional option to change the frequencies permitted under the 3.9GHz licence from 3925-4009MHz to 3800-3884MHz.

**Question 2:** Do you have any comments on our proposed 18-month transition period for Shared Access users?

The proposed 18 month transition period is a reasonable timescale and the BBC anticipates no difficulties retuning its own systems within this time.

**Question 3:** Do you have any comments on our proposed approach to protecting Fixed Links and Satellite Earth Stations in 3800-3884 MHz?

The BBC is content that Ofcom have set out their intention to modify and remove H3G assignments to appropriately protect Satellite Earth Stations but would like to engage further to understand more detail on how ROES will be protected from harmful interference.

**Question 4:** Do you have any other comments for us to consider in relation to the topics raised?

No comment

**Question 5:** Do you have any comments on our impact assessment?

No comment

**Question 6:** Do you have any comments on our equality impact assessment?

No comment

**Question 7:** Do you have any comments on our Welsh language impact assessment?  
Please provide evidence in support of your views.

No comment