BBC response to Ofcom's consultation: More spectrum for satellite connectivity – Extending access in the Ku band (14.25-14.5 GHz)

August 2022

Introduction

The BBC welcomes the opportunity to respond to this consultation on access to satellite spectrum and Ofcom's proposal to extend spectrum access for new developments and technologies, both GSO and NGSO, within the Ku band, specifically in 14.25-14.5 GHz. We have commented on the consultation areas most relevant to us.

Over a month almost all UK adults – 97% – use the BBC,[1] and it reaches a weekly audience of 492 million people around the world.[2] The BBC provides an unrivalled level of news, including international news and current affairs, to keep the UK informed. We are by far the UK's most-used news provider,[3] helping nearly 80% of users to understand what's going on in the world today.[4] Millions come to the BBC to watch and listen to our coverage of sports and live events which are held across the world. In order to provide this coverage to UK audiences, we require some core infrastructure which includes certain access to satellite spectrum.

Currently, and for the foreseeable future, the BBC will continue to rely upon access to satellite spectrum across many bands including the range 14.25-14.5GHz. The BBC uses satellite systems in this part of the Ku band for contribution, distribution and systems monitoring.

Contribution is the process of receiving live coverage and pre-recorded material from any location in the world including for news, sport and other live events. Whilst terrestrial and fixed wired infrastructure is increasingly employed from regular locations it may not be available or justifiable on cost grounds for breaking news or one-off events. On those occasions, the BBC still deploys transportable earth stations, usually satellite trucks, to ensure reliable coverage of news events. A recent example is the war in Ukraine, where our reporting has been relied upon by millions in the UK and around the world, including in Ukraine and Russia.

Additionally, in many instances, a separate satellite path is typically used to back up fixed contribution wired infrastructure providing diverse feeds, most often also in the Ku band. There is a trend for newsgathering to use bonded multiple SIM equipment, which relies on the public telecoms networks, which provide sufficient reliability and technical quality for breaking news. However, coverage and capacity is not always guaranteed. Satellite uplink capacity is therefore necessary to ensure reliability when covering high-profile stories on an ongoing basis. An example of the BBC's ongoing reliance on the Ku band for this purpose is high profile football matches with big audiences around the world.

Distribution uses satellite to deliver BBC content to audiences within the UK and overseas, both directly to the home and to partner broadcasters for ongoing

[1] Compass by Ipsos MORI.
[2] BBC Global Audience Measure.
[3] Ibid.
[4] Ofcom, 2022 News Consumption in the UK survey. 78% of BBC TV audiences, 83% of BBC website/app users, and 74% of BBC radio listeners said the BBC helps them to understand what's going on in the world today.

transmission in other territories, including for BBC News and BBC Studios[5]. It is both a cost effective and reliable means of providing content to millions of individual viewers, affiliates and partner broadcasters around the world without having to rely upon local connectivity and infrastructure in other territories.

Systems monitoring uses satellite broadband to monitor the operational health of critical broadcast systems, such as FM transmitters, around the world where fixed or mobile broadband technologies are not available or are prohibitively expensive. The operation of systems monitoring allows the BBC to monitor and react quickly to critical incidents affecting broadcasting, and the BBC therefore has an interest in the development of both GSO and NGSO satellite broadband.

The expansion and development of NGSO systems is also of interest to the BBC. The BBC already uses existing NGSO systems for contribution links, and they demonstrate encouraging uplink speeds. However, they are not yet globally operational and resilience isn't sufficient for reliable use.

BBC response to specific questions

Question 2: Do you agree with our proposal to extend access in the 14.25-14.5 GHz band for satellite connectivity, for future broadband, air, sea, energy and transport uses? Please provide evidence to support your comments.

We believe that NGSO systems will play an increasing role for contribution applications in the future, in particular where terrestrial connectivity is poor or rapid deployment is required, and therefore we agree with the proposal to extend access in the band 14.25 - 14.5GHz for NGSO satellite broadband connectivity. The ongoing compatibility of greater NGSO spectrum use with legacy GSO systems upon which the BBC and many others rely needs to be carefully considered. Ofcom's March 2022 'Space Spectrum Strategy' consultation highlighted 'NGSO systems sharing with GSO satellites'.[6] We note the assurances of Ofcom to monitor the impact of NGSO systems and protect ongoing GSO operations which remain vital to the BBC and the creation and distribution of its worldwide services.

The BBC has no views on extending the 14.25-14.5GHz band for air, sea, energy and transport uses.

[5] BBC News includes global public service content such as World Service and World News. BBC Studios distributes BBC content made for UK audiences commercially available outside the UK

[6] Ofcom, Space Spectrum Strategy Consultation 2022, https://www.ofcom.org.uk/__data/assets/pdf_file/0024/233853/consultation-space-spectrum-refresh.pdf 6.43-6.52.