

## Your response

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

There are a small number of MOD locations which are operated under a combination of RSA and receiving at risk. Any changes to the use of this band will require engagement between MOD and Ofcom to ensure Defence capabilities are not unduly impacted. Of particular note is the MOD site located at Bude in Cornwall which uses spectrum above 3.4 GHz, including in the 3.6 GHz - 3.8 GHz frequency band. Operation below 3.6 GHz has been recognised by Ofcom and protection is afforded per the terms set out in the 3.4 GHz spectrum auction Information Memorandum. Operations above 3.6 GHz do not at this time benefit from any protection from other services due to the low risk of interference at present. The proposed changes to the band change this risk so similar protections would be required in this band as in the 3.4 GHz band. In recognition of the relatively small number of RSAs and the low uptake by current Fixed Wireless Access (FWA) services, the MOD would wish to see further clarification in support of a nationwide release of the band with no protection for incumbents – in particular existing ROES RSAs where ground stations are unlikely to have control over the satellite channels of interest. If Ofcom were to consider removing authorised access for future Earth stations in the 3.6 GHz - 3.8 GHz band due to the long investment and duration of satellites providing services (including potential backhaul and coverage for 5G), and the reduction in C-Band spectrum available for satellite use in the UK, a period of secure tenure should be provided for satellite services in the 3.8 GHz – 4.2 GHz, especially those being affected by the change in 3.6 GHz - 3.8 GHz. As Ofcom point out in the consultation, it is fixed-links which pose the greatest barrier to 5G roll-out in key demand areas, so removing satellite services in the band appears to be disproportionate [8]. 5G technology is in early stage of development and there is not yet clarity regarding the technical parameters for its use in the 3.6 GHz - 3.8 GHz band highlighting that if an MOD site is protected then future 5G operators would be aware of the location and would therefore be required to protect it under the general Ofcom licence conditions not to cause interference to incumbent services. The existing RSA for ROES approach should be used to permit satellite downlinking to continue in the 3.6 GHz – 3.8 GHz band, with any other licensee respecting and protecting locations with RSA. If Ofcom do in the future decide to implement the proposals outlined in Option B, there should be a reasonable notice period given before any changes are made to limit or prevent current use of 3.6 GHz - 3.8 GHz as there is no additional spectrum being made available for C-Band satellite downlink use other than 3.8 GHz - 4.2 GHz (the statement suggests Ofcom are likely to consult on making this band available for 5G with no clarity on what level of protection or security of tenure migrated services would receive). The MOD believes a minimum of a five year notice period from when changes are made in the access of the 3.6 GHz - 3.8 GHz band is a more realistic compromise.

[8]

**Question 2:** *Do you have any comments on our assessment of the likely costs and benefits of our proposed approach?*

MOD believe that the impact of changing the use/access in the 3.4 GHz - 4.2 GHz range should be considered strategically as a whole band instead of considering the impacts of a change in access of each sub-band in isolation.

The MOD believes that the auction of 3.4 GHz would give an indication of likely use and demand for the 3.6 GHz – 3.8 GHz and 3.8 GHz – 4.2 GHz bands in the future. The results of the 3.4 GHz sale could then be used to set FWA licence and RSA fees in the 3.6 GHz – 3.8 GHz band, which could lead to more organic changes in access.