

ClearSpace Today Ltd (ClearSpace) welcomes Ofcom’s consultation on its Space Spectrum Strategy (the strategy) published in March 2022. Although we have unfortunately passed the deadline to provide formal comments, we would like to support the ones provided by Astroscale Ltd and the Global Satellite Operators Association (GSOA), and highlight what we believe are the most important aspects.

Efficient allocation of space spectrum is crucial to the development of the space sector and securing increased benefit from this industry for the UK. The strategy is very appropriate given the ongoing changes in the space ecosystem.

To support the increased number of satellites placed into orbit and ensure the continuity of critical space-based services, a wide variety of in-orbit services (IOS) are being proposed and starting to be offered. IOS include diverse activities such as the transportation and repair of spacecraft in orbit, the refuelling and life extension of spacecraft, and assisted disposal services, including active debris removal (ADR). This last one is a key activity to address growing threats from space debris and limit collision risk.

Analysts predict an increased demand for IOS, with forecasted cumulative revenues of USD 3 billion by 2031.¹ A significant share of this demand lies in the ADR market in low Earth orbit (LEO).

Ensuring the safety and sustainability of space activities requires the availability of scalable and prompt IOS solutions. Effective licensing pathways to secure access to Telemetry, Tracking and Command (TT&C) frequencies are crucial for the development of this nascent industry. IOS missions have limited overall spectrum needs but require protected communications in critical phases such as proximity operations and capture.

The licensing process at the national level and the filing process at the ITU level should consider the peculiarity of IOS, with missions spanning various orbital regimes, having short periods with critical communications needs, and servicing different client objects. These processes should make sure missions that support safe and sustainable operations have assured spectrum access and priority during critical mission phases.

ClearSpace strongly supports Astroscale’s statement that a “very important area to be progressed by Ofcom is enabling early regulatory action at national UK level and ITU level (at WRC-2023) to facilitate reliable TT&C frequency access for ... Non-GEO IOS space systems.” An assured and efficient pathway to secure access to TT&C frequencies for IOS missions is an enabler for a reliable, sustainable, and thriving UK space infrastructure.

¹ Euroconsult (2022), Space Logistics Markets, 1st edition. <https://digital-platform.euroconsultec.com/product/space-logistics-markets-space-logistics-value-chain/>