

Response to Ofcom Consultation on ‘Award of available Spectrum in the 10, 28, 32 & 40GHz Bands: Spectrum Packaging and Auction Design (due date: 8th February 2007).

Intellect wishes to draw to Ofcom’s attention that, although some reference has been made to Intellect previous comments relating to the 28GHz band in Ofcom’s Auction Award Document, *the serious concerns that we previously flagged up do not appear to have been taken into account at all.* Correspondingly we wish to reiterate those concerns unaltered as our formal response to the above new Consultation, using the following identical (to previous) text:

Start of Text:

Re the 28GHz Band

The 28 GHz band is of immediate current interest for satellite telecommunications applications, as will now be explained.

The band 27.5 – 30.0 GHz has been widely considered for use in Ka-band satellite broadband systems employing multiple spot beams. The band 29.5 – 30.0 GHz is usually assumed for uplinks from small, unlicensed user terminals, whilst the remainder of the band (27.5 – 29.5 GHz) is usually reserved for gateway earth station uplinks. This “gateway” band encompasses the 28 GHz spectrum currently being considered for licensing by Ofcom (and includes spectral blocks already licensed for regional terrestrial use in 2000).

For Ka-band satellite broadband systems to be commercially viable it is necessary to operate with a few gateway stations serving a large user terminal population. This requires access to a large amount of spectrum for the gateway uplinks. The “gateway” band identified above provides up to 2 GHz of spectrum for this purpose. Most broadband systems rely on the ready availability of most if not all of this contiguous spectrum to achieve their full capacity potential (and hence their full revenue potential).

For example, HYLAS gateway uplinks utilise the contiguous band 28.0 – 29.5 GHz. This encompasses almost the entire spectrum being considered for licensing. HYLAS the European satellite for delivering Broadband to inaccessible places is scheduled for commercial operations in 2008, so thereafter there would be virtually no “unused or under-used spectrum” to put on the market. This would fulfil a stated objective of Ofcom’s licensing proposals.

Ofcom has already divided up the 28 GHz band with the award of 15 regional licences in 2000 for terrestrial use. The current proposals would promote further fragmentation of

the band. *This fragmentation is seriously detrimental to the proper exploitation of the band for satellite broadband applications, as explained above.*

The Ofcom proposal includes technical considerations concerning operation of satellite earth station uplinks *in addition to terrestrial services* and within the same spectral allocations. It is unclear to Intellect whether this is intended as:

- a. Technical guidance to a licensee who might also want to operate satellite uplinks in part of the licensed spectrum, or
- b. A statement that a licence is a pre-requisite to operate any satellite uplinks within the associated band (even if no terrestrial usage is planned).

If (b) is the case, that is, if a licence to operate one or more satellite earth stations in the UK over the whole of the 27.5 - 29.5 GHz “gateway” band will not be granted without the earth station operator purchasing *all of the spectrum available for licensing*, then clearly this discriminates against broadband satellite applications and is contrary to one of the stated working principles of Ofcom (namely not to discriminate against any technology or application).

The foregoing explanations have been provided within this Intellect response to emphasise among other things *the urgent need for a full clarification of the status of & arrangements for earth station uplink licensing with regard to Ofcom’s proposals for the 28 GHz band. Here, self evidently, the satellite operator has no interest in providing terrestrial services either on a regional or national basis, hence has no interest in purchasing licences for the latter purpose.*

End of Text/End of Consultation Response.
