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Avanti Screenmedia Group plc response to the Ofcom consultation on 'Award of Available Spectrum in the 10 28 32 and 40 GHz Bands':

Avanti is grateful for the opportunity to comment on the consultation on the award of available spectrum in the 10, 28, 32 and 40GHz bands. In particular, we support its technology neutral principles, however, we believe that an international dimension to the issue of frequency award must also be considered as described in this response. Avanti's responses to the questions posed by Ofcom are provided below:

1. Do stakeholders agree with the proposals for the award of licences in the 10GHz, 28GHz, 32GHz and 40GHz bands in 2007?

The 28GHz Band

Avanti is investing £80m in the development of the first European dedicated Ka-band spot beam satellite system (known as HYLAS) and, therefore, has direct interest in the utilisation of the 28 GHz band. The HYLAS project is being supported by HMG through the European Space Agency because it delivers objectives regarded as crucial to British industrial and social policy.

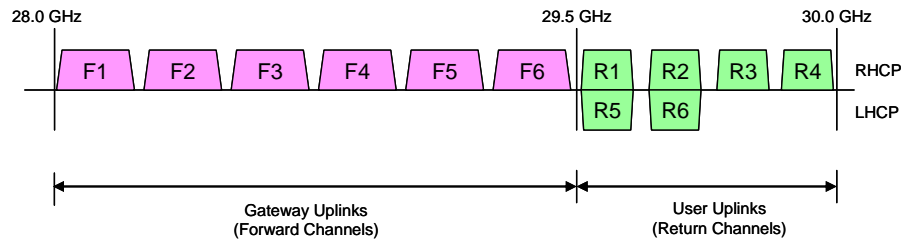
HYLAS will utilise the 28.0 – 30.0 GHz band which has been widely considered for use in Ka-band satellite broadband systems employing multiple spot beams. The band 29.5 – 30.0 GHz will be employed for uplinks from small, unlicensed user terminals, whilst the remainder of the band (28.0 – 29.5 GHz) is reserved for our gateway earth station uplink. The frequency plan for HYLAS is illustrated in Figure 1.

Avanti has already registered the HYLAS Ka-band satellite network with the ITU, Advanced Publication in BR IFIC 2556 of 01.11.2005, API/A/3839, ID Number 105540620 (protected on 25.04.06). This followed Ofcom's procedures for network registration including full due diligence on Avanti's plans, which specified the utilisation of a UK gateway operating over the contiguous 28-29.5 GHz band.

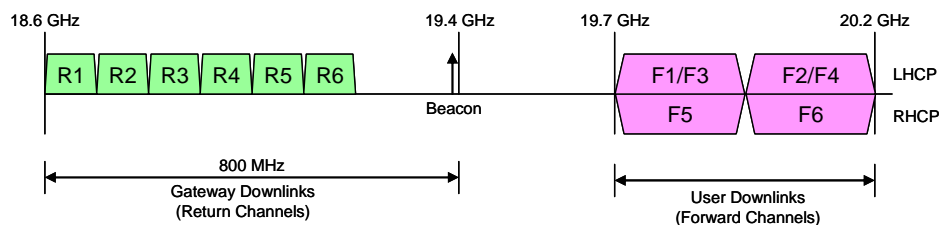
For the HYLAS Ka-band satellite broadband service to be commercially viable it is necessary to operate with a single gateway station serving the projected user terminal population. This requires access to a large amount of spectrum for the gateway uplink -up to 1.5 GHz of spectrum in the case of HYLAS. HYLAS relies on the ready availability of most if not all of this contiguous spectrum to achieve full capacity potential.

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Uplink Frequency Plan



Downlink Frequency Plan



NOTES: Forward channels from gateway beam into beams 1 to 6 are shown in pink.
Return channels from beams 1 to 6 into gateway beam are shown in green.

Figure 1. HYLAS Ka-band Frequency Plan.

HYLAS is a UK initiative designed to deliver service across much of Europe. It represents a major opportunity for UK industry to generate direct export revenues through the utilisation of UK spectrum. We believe that this international dimension and export opportunity should be taken into account when considering the methods for allocation of this spectrum.

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 Avanti whether this is intended as:

- Technical guidance to a licensee who might also want to operate satellite uplinks in part of the licensed spectrum, or
- 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).

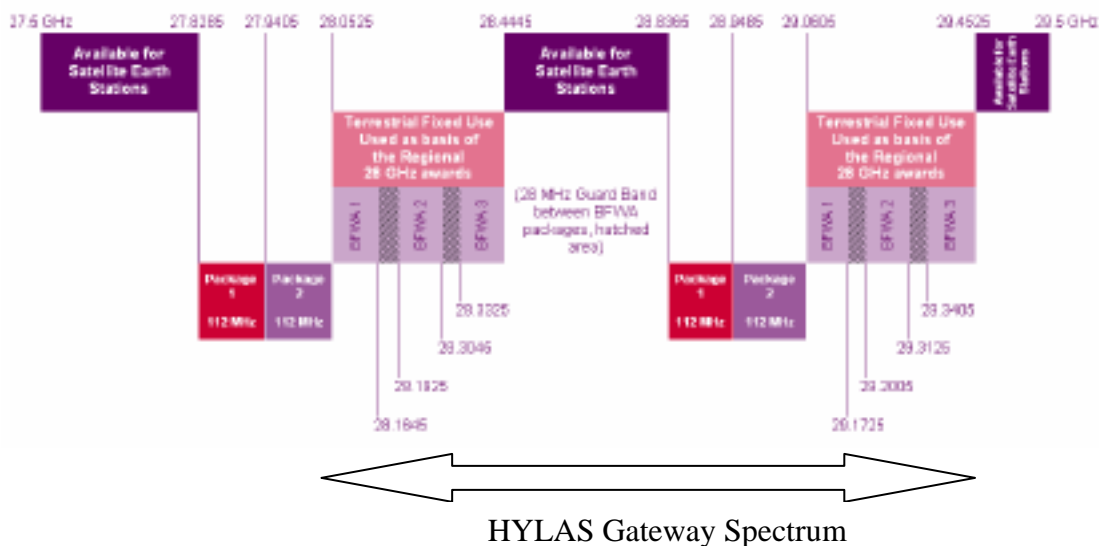
If (b) is the case, and Avanti requires a licence to operate its satellite gateway station in the UK over the whole of the 28.0 - 29.5 GHz "gateway" band, which will not be granted without Avanti purchasing *all of the spectrum available for licensing*, then clearly this discriminates against broadband satellite applications and is contrary to one of the stated working principles of Ofcom (namely not to discriminate against any technology or application). To locate its gateway station in the UK, Avanti would have to secure licences for Ofcom's proposed BFWA1, BFWA2, BFWA3 licences covering the region in which the gateway station is located, plus national



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licences for Package 1 and Package 2. Of course, HYLAS has been designed with a second gateway beam to mitigate against the eventuality of the UK gateway beam being unusable. This second gateway beam covers Spain and its utilisation would require Avanti to make significant capital and operational investments in Spain, rather than in the UK.

Figure 2 Band Plan 28 GHz (Frequencies in GHz)



The movement of the HYLAS gateway to Spain would clearly illustrate the wider consequences of the proposed license regime - the constraints imposed on utilising the full 27.5 to 29.5 GHz spectrum would severely prejudice the UK's position as a host for satellite teleports.

Avanti requests Ofcom to provide an *urgent and full clarification of the status of & arrangements for earth station uplink licensing with regard to Ofcom's proposals for the 28 GHz band. Avanti 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.*

2. Do stakeholders agree with the proposal to include in the award of the 32GHz band that portion of the band that has been open for point-to-point applications?

No comment

3. Do stakeholders agree with the proposal to defer the release of the 40GHz band and review the position in two years' time?

No comment

4. Do stakeholders have any other comments on the contents of this document?

No further comments.