

TerreStar Europe Response to Ofcom Consultation

“Authorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systems – A statement and second consultation”

November 2008

Introduction

TerreStar Europe Limited (hereafter “TerreStar”) welcomes this opportunity to respond to the Public Consultation launched by Ofcom on the “Authorisation of terrestrial mobile networks complementary to 2GHz mobile satellite systems” (hereafter “the Consultation Document”).

TSG appreciates the work undertaken by Ofcom in trying to establish some clarity in advance of the adoption of the EC Article 95 Decision leading to the pan-European selection and authorisation of Mobile Satellite Services (MSS) providers but regrets that Ofcom has not taken advantage of this second consultation to state what the licensing fees, if any, will be for CGCs.

We thank you in advance for taking consideration of these views. Feel free to contact Richard Vos, by phone +44 7740 095478 or email richard.vos@terrestar.eu should you need further information.

1 Answers to questions on the detailed terms and conditions of such authorisations

Question 1: Do you agree with our proposals for the detailed terms and conditions of the CGC Licence set out in this document or have any other comments on the issues raised in this document?

TerreStar broadly agrees with the detailed terms and conditions of the CGC licence set out in the Consultation, even though it regrets the fact that Ofcom has not taken the opportunity of this consultation to provide full clarity on all the conditions that will apply, including licence fees if appropriate.

Question 2: Do you agree with our proposed approach for including the conditions imposed by Decision No 626/2008/EC in the CGC Licence?

TerreStar agrees with the fact that the CGC authorisation will consist of a spectrum access licence with the addition of the specific conditions imposed by Decision No 626/2008/EC.

TerreStar however regrets that:

- Ofcom has not taken the opportunity of this second consultation on MSS to clarify that CGC terminals will be licence exempt
- Ofcom has not indicated what the proposed statutory instrument to allow the UK to fulfil its obligations will be.

- Ofcom has yet again not specified what its approach will be in terms of licensing fees, aside from stating that it believed AIP to be the appropriate calculation basis.

As regards the issue of licensing fees, TerreStar specifically questions the answers set out on pages 24 et seq. regarding the arguments given by some respondents to the first consultation as regards the CGC licensing fees.

In particular, Ofcom notes that international constraints have been raised by some respondents (TerreStar being one of them) to argue that even if AIP were used, the opportunity cost of the MSS spectrum would be zero. TerreStar is shocked by Ofcom's response that "international constraints (...) can be changed" and "if we were to take account of these constraints (...) we would create an undesirable incentive for spectrum users to lobby international fora...". Frankly, in light of the extensive process the whole S-band allocation went through, with the UK involved at every step, both remarks seem a very unwarranted manner for brushing aside an important argument.

TerreStar moreover has to yet again point out that Ofcom has made no impact assessment of the impact of its decisions not only on UK citizens but on the entire EU market, as requested by its statutory duties. It is to be hoped that Ofcom will issue a proper consultation with real arguments and a full impact assessment as regards CGC licensing fees.

TerreStar also anticipates further consultation on the other elements abovementioned.

Question 3: Do you believe that the technical parameters used to define transmission rights should be based on spectrum usage rights or spectrum masks?

TerreStar's system can comply with both approaches but we prefer the use of spectrum masks.

Question 4: Do you agree with our proposed SUR parameters for CGC?

TerreStar has concerns about the SUR approach, especially as regards the complexity of the testing requirements. TerreStar therefore prefers the use of the spectrum mask approach

Question 5: Do you agree with the spectrum masks parameters proposed?

TerreStar agrees with the limits on the spectrum masks.

Question 6: Do you agree with the proposed changes to the other standard technical licence terms and conditions?

TerreStar agrees with 58 dBm/MHz EIRP but would prefer an additional limit of 68 dBm/10 MHz to maintain the same energy per symbol for all channel bandwidths (otherwise the operators that use wider channels are penalized in terms of spectral efficiency per unit bandwidth).

Question 7: We have assumed that the CGC base station and user terminal characteristics will be similar to those for equivalent 3GPP equipment. Specifically, we have assumed a maximum transmitted power of 31 dBm/5 MHz for CGC handsets, and a maximum transmitted power of 61 dBm/5 MHz for the CGC base stations. Do you agree these are reasonable assumptions?

These are reasonable assumptions for the purpose of compatibility analyses but we propose that the CGC base station limit be relaxed, as described above. The maximum power of 31 dBm/5 MHz for a CGC handset is a reasonable assumption, but note that the ETSI standard allows for 39 dBm \pm 2.7 dB. The value of 31 dBm/5 MHz should not be viewed as a potential limit for CGC handsets. We assume a further consultation when the licence exemption regulations are being developed.

TerreStar in general agrees that the assumptions set out in the Consultation are reasonable but considers that the CGC base station limit should be further extended, especially if one considers that the ETSI standards for maximum power of CGC handsets are 39 dBm \pm 2.7 dB (as opposed to the 31 dBm/5 MHz suggested in the Consultation).

Moreover, TerreStar would like to point out that 3GPP WCDMA/HSPA standard allows for 33 +1/-2 dBm/5MHz Tx power at the antenna connector and at the very minimum that should be allowed as Tx power and 3GPP has not yet defined Power Classes 1 and 4, which may be higher than for WCDMA/HSPA. We also note that the Consultation refers to EIRP as Tx power, which are equal if and only if antenna gain is 0 dBi, whereas other standardization bodies distinguish between the two. Considering that PC card modems may use antennas better than 0 dBi (by several dB), TerreStar supports 39 dBm \pm 2.7 dB as EIRP to accommodate non-handset terminals and potentially higher power limits for Class 1/4 LTE handsets.

As far as the CGS base station limit per 5MHz is concerned, we suggest 65 dBm/5MHz for the same reasons as set out in our response to Question 6.

Question 8: We have based our analysis of compatibility between CGC and other radio systems on studies of analogous scenarios conducted for the 2.6 GHz award –do you agree with this assumption?

TerreStar believes these are reasonable assumptions.

Question 9: Do you have any comments on the assumptions of the deployed network modelled for the SUR parameters?

TerreStar has no comments at this stage.