

Office of Communications (Ofcom)  
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ESOA MFR WG (08)115

## **Input to the Ofcom consultation on “Authorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systems” dated 15 January 2008**

### **1 Introduction**

ESOA<sup>1</sup> and SAP REG<sup>2</sup> would like to congratulate Ofcom for the timely availability and in-depth nature of the consultation document. Please find hereby the comments from the members<sup>3</sup> to each of the questions (except for question 5).

### **2 Answers to questions**

*Question 1: Do you agree that the CGC licence should be in the form of a spectrum access licence with standard terms and conditions?*

We believe that besides the standard terms and conditions, particular terms should be added, including a reference to the fact that CGC base stations are considered to be integral part of the mobile satellite service and that frequencies used by the CGC network need to be managed by the same system that controls the frequencies in the associated MSS system. As a corollary of this, licence terms on the independent functioning of the CGC network need to be made explicit.

Furthermore, confirm to what is mentioned in section 7.15, the duration of the licence will need to conform to the duration set in the proposed article 95 Decision and be ultimately linked to the lifetime of the satellite.

An important aspect to include is the possibility to extend the original term of the licence. Taking into account the long lead-times for the design of a next-generation satellite and the substantial upfront investment, it is crucial that Ofcom has due regard to its general duties including encouragement of investment and innovation and provides automatic extension as long as the system operates as complement to an authorised satellite network.

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<sup>1</sup> Members of ESOA are: Astrium Services, Eurasiasat, Eutelsat, HellasSat, Hispasat, Inmarsat, SES, SES Sirius, Telenor and Telespazio. Arianespace, Astrium Satellites, Avanti, International Space Brokers, Mansat, Marsh, Thales Alenia Space and Willis are Supporting Members of ESOA

<sup>2</sup> SAP REG members include: Alcatel-Lucent Mobile Broadcast, Connexion by Boeing, EADS Astrium, Euroma WorldSpace / WorldSpace Europe, Europa-Max, Eutelsat, France Telecom, Globalstar, Hispasat, Hogan & Hartson, Hughes Network Systems, ICO Global Communications, Inmarsat, Intelsat, Mobile Satellite Ventures, Ondas Media, Rose Vision, SES-Global, SES-New Skies, Squire Sanders & Dempsey, Telenor Satellite Broadcast, Telespazio, Terrestar Global, Thales Alenia Space, Thuraya, as well as the following organisations ESOA, GVF, ISI, MSUA.

<sup>3</sup> While ICO Global is a SAP REG member, ICO Global is unable to support this particular SAP REG contribution to Ofcom

*Question 2: Do you agree that such licences should be awarded on a UK-wide basis?*

Yes, we agree with the grant of a right to cover the whole of the UK, without coverage or quality of service obligation.

The complementary ground component has as objective to strengthen the quality of the service of the satellite service in major cities and built-up areas. Since the satellite footprint can easily cover the full territory of the UK, it is consistent to allow operators to install ground segments wherever suitable in the full territory. Operators should, however, be free to decide on the need and the extend for CGC roll out.

*Question 3: Do you agree that the CGC licence should authorise the complete set of frequencies assigned under the EC process?*

This approach is supported since, although not all authorised frequencies may be used for CGC in the UK, the MSS operator would need access to the full pool in order to manage the network in the most efficient way over the full footprint.

*Question 4: Do you agree that the initial grant of the CGC licence should made be to the MSS operator only?*

We fully agree with this position, which is in line with the Article 95 Decision currently under development by the European Parliament and the Council.

CGC has been defined in the Commission Decision of 14 February 2007 as “an integral part of the mobile satellite system and (...) be controlled by the satellite resource and network management system.”

Given the “overlay” nature of the terrestrial component and the need for the satellite operator to control the frequency management system, grant of the spectrum right included in the CGC licence to the satellite operator is the only way to avoid adequate sharing and avoid harmful interference into the satellite network.

At a later stage, the satellite operator may choose to transfer the licence to another entity, depending on the commercial set-up of the consortium.

*Question 6: Do you agree that the CGC licence should not include a coverage obligation?*

As already indicated in the reply to question 2, SAPR REG agrees with Ofcom that coverage obligations are unnecessary in the CGC licence

*Question 7: Do you agree that the CGC licence should be provided on a service and technology neutral basis?*

As far as SAP REG and ESOA are aware, candidate operators are interested in a variety of services, ranging from broadcast service, mobile TV to traditional MSS services or even a mix of these. It is therefore opportune to issue service and technology neutral licences.

*Question 8: Do you agree that if CGC licences should be tradable and, if so, that they should be both totally or partially tradable and both outright or concurrently tradable, that Ofcom's consent should be required for transfers and that the grounds on which Ofcom may withhold consent should be limited as proposed?*

As set out in section 3.20, the Framework Directive allows for spectrum trading to occur, subject to the need to ensure that: "the use of spectrum harmonised under Community measures does not change".

Taking into account the pan-European nature of the selection and authorisation process and the intrinsic interdependency between the CGC and the satellite network, tradability on a national level of the sole CGC licence is not feasible and should not be allowed.

Simple transfer of the original licence, upon demand of the satellite operator, on the other hand, should be allowed to accommodate the pursuit of an appropriate business structure.

*Question 9: Do you agree that AIP should be applied to CGC licences at a rate that reflects the associated opportunity cost?*

We understand that one of the major spectrum management objectives of OFCOM is to achieve efficient use of the spectrum and one of the best tools at its disposal to achieve this objective is the application of the "opportunity cost". In the case of auctions, it is clear how the value of the spectrum is estimated; it simply depends on how much an operator is willing to pay. However, it is much more difficult to understand the determination of spectrum value in the case of Administrative Incentive Pricing (AIP). Applying prices obtained in other frequency bands and/or for other services, may result in certain case in very large anomalies.

The 2GHz MSS band is allocated to satellite and the EC have decided in decision 2007/98/EC to authorise MSS systems in this band, with the possibility for the operators which will be selected to add CGC (Complementary Ground Component). Therefore, the use of CGC does not "cost" any additional spectrum, particularly since no other use of these frequencies could be made.

In 8.25, OFCOM states that the question of appropriate alternative use should be taken into account to determine the opportunity cost associated with CGC. Given the restrictions imposed by the European regulations and the mandatory requirement stemming from the EC process for MSS systems to cover at least part of the UK, any alternative and secondary application would have to protect current and future MSS and MSS/CGC systems operating in the UK and outside the UK and should operate with such severe operational and technical constraints in terms of power and coverage that only very limited secondary services could be reasonably considered.

Therefore, a high AIP based on the opportunity cost for another potential application is clearly not justified and the opportunity cost is necessarily much lower than the value proposed by OFCOM

In 8.21, OFCOM states that "...the cost of not having any price signal is that this removes an incentive for efficient use of the spectrum". In fact, in the particular case of CGC, not permitting access to the spectrum for CGC by having a too high AIP will impede an otherwise efficient use of the spectrum, which is certainly not the objective of OFCOM. Furthermore, added to the fact that spectrum efficiency is already a criterion in the European selection process, the CGC operator is anyway under such a commercial pressure to maximise the efficient use of the band in order for the value for customers to be itself maximised, that we are doubtful that OFCOM attempts to increase spectrum efficiency through the application of AIP would be necessary or even effective.

In 8.27, OFCOM recognises that the present value of the AIP for CGC in the 2GHz band has nothing to do with the value proposed in the question 10. It considers instead that this present value could change in the future and become aligned with the AIP in adjacent bands. OFCOM therefore concludes that only such potential future value should be retained. We do not agree with such reasoning: the same AIP could then be applied to frequencies above 100GHz, just because one day the technology will permit using them.

*Question 10: Do you agree that the licence fees should be set at around £554,000 per 2 x 1MHz?*

Based on the arguments developed above, we consider that the AIP for CGC in the 2GHz band is zero. Therefore, any licence fees should be limited to cover OFCOM's costs associated with the management of this part of the spectrum.

As set out under question 9, setting the level of CGC licence fee by a comparison with GSM licence fee is itself not justified.

Indeed, the MSS 2GHz band has been designated for MSS systems as primary applications, with or without CGC. Given the agreed conditions for systems employing a CGC in accordance with the CEPT ECC Decision of 1 December 2006, it is clear that a CGC will not have the same capacity as a terrestrial only mobile system for a same amount of spectrum. At any time, a portion of the spectrum licensed to the CGC operator will not be usable for CGC but will be used for the satellite part.

Then, the costs (satellite, ground infrastructure, dual mode handsets) and specific obligations (requirement of coverage of substantial parts of each Member State) involved by the overall MSS/CGC system are additional elements proving that the comparison is not sustainable.

*Question 11: If you believe that setting fees at this level would result in CGC systems not being deployed, please provide your reasons and full supporting evidence including a detailed business case.*

Extrapolating the figure proposed by OFCOM on a 2X15MHz and on a pan-European basis would result in fees of £233 million.

ESOA and SAP REG, being associations, are not able to provide any business case, but this figure would obviously convince any operator of not adding CGC to its satellite system.

Sincerely

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