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Comments of ONDAS Media, S.A.

Ofcom Consultation on

Authorisation of Terrestrial Mobile Networks Complementary to 2 GHz Mobile Satellite Systems

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Introduction

Founded in 2004, ONDAS Media, S.A. ("ONDAS"), intends to be Europe's first and premier pan-European provider of satellite digital multimedia services, with a planned service launch in 2010. Following on the successful launch and take-up of such services in North America, ONDAS plans to provide more than 200 channels of premium multimedia content and data, including multilingual music, video, sport, telematics, navigation, emergency information and other data services to consumers throughout Europe in their cars, homes, offices and portable receivers.

The ONDAS service will be available on a pan-European basis, 24 hours a day and 7 days a week, from at least three non-geostationary (NGSO) satellites placed in highly elliptical orbits (HEO) around the Earth. The signal transmitted by these satellites will be received directly by customer receivers in vehicles, homes and portable devices.

ONDAS plans to use the 2 GHz bands – 1 980 – 2 010 MHz (Earth-to-Space) and 2 170 – 2 200 MHz (Space-to-Earth) – for the operation of its service links. ONDAS has, through Spain, filed with the ITU for use of these two bands, and it intends to participate in the MSS selection and authorisation procedure that is being organised by the European Commission.

In areas where reception of the satellite signal is blocked by man-made infrastructure (such as tall buildings or tunnels) or natural obstructions (mountains, dense woodlands etc.), it may be necessary to supplement the signal from the ONDAS' satellites with a limited network of terrestrial transmitters, or Complementary Ground Components (CGCs). Such CGCs will not modify the content broadcast by satellite, but will simply amplify locally the satellite signal, in order to provide a uniform quality of service in difficult environments.

ONDAS is grateful for the opportunity to participate in Ofcom's 2GHz CGC Consultation and offers the following comments in response to the questions raised in the Consultation Document.

Comments on the Consultation Document

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

ONDAS agrees that CGC licenses should encompass standard terms and conditions similar to those set forth in the relevant portions of Ofcom's Wireless Telegraphy General License Conditions Booklet.

As to whether the GCG license should be "in the form of a spectrum access license," we understand that the license is intended to authorise the operation of CGCs, not access to the 2 GHz spectrum in general, and that the license would not be required, for example, where an awardee in the MSS selection procedure does not intend to use CGCs.

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

Operators awarded spectrum through the MSS selection procedure will have the exclusive right to use the frequency bands awarded to them for the provision of service on a pan-EU basis, including throughout the UK. Accordingly, it would make sense for Ofcom to award CGC licenses on a UK-wide basis.

However, while such licenses should authorise operator to deploy CGCs throughout the UK, there should be no requirement that licensees actually deploy a minimum number of CGCs in the UK, or deploy them in particular areas. Operators should be free to deploy CGCs only where, in their view, this is necessary in light of their respective system architectures, service models and business plans.

Finally, as noted in our response below to Questions 9 through 11, ONDAS believes that an operator's CGC license fee should reflect the number of CGCs actually deployed by the operator.

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

ONDAS agrees that the CGC license should authorise operators to use any of the frequencies awarded them under the EU selection procedure for the operation of CGCs.

Again, however, the decision whether to deploy CGCs, where to deploy them, and which of the awarded frequencies to use for CGC operation, should be left to the discretion of operators.

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

ONDAS agrees that the initial grant of CGC licenses should be made only to the MSS operators chosen through the selection procedure. This would seem to be required, in any event, under the draft Article 95 Decision, and it would be necessary as well in order to implement the Commission's harmonising decision on the 2 GHz bands, which defines CGCs as "an integral part" of the MSS system that must be "controlled by the satellite resource and network management system."¹ Further, the grant of CGC licenses to the selected operators would also seem to be the only practical means to ensure that interference between satellite and terrestrial (CGC) use of the bands is avoided.

Question 5: Subject to certain safeguards, would it be appropriate to license the CCG in advance of the satellite service coming into operation and if so, what criteria should be applied to determine whether the satellite component of the MSS network is operational and what period of time do you consider would be appropriate?

ONDAS sees no particular problem with licensing CGCs in advance of satellite service coming into operation, provided there are sufficient safeguards to ensure that a licensed operator's satellite service will, in fact, come into operation within a limited time frame.

As regards the appropriate period of time for which CGCs could be licensed on this basis, we note that the Article 95 Decision will likely include a milestone requiring selected operators to provide satellite service in the territories of the EU Member State by a certain deadline. Amendments to the draft Article 95 Decision proposed by the European Parliament's Committee on Industry, Commerce and Energy would require operators to commence the provision of satellite service within 22 months from a Commission decision on spectrum awards. A period of 22 months, or perhaps 24 months, would appear to be an appropriate benchmark for CGC licensing as well: selected operators could be authorised to operate CGCs without the corresponding satellite service having been brought into service up until 22 months (or 24 months) following a Commission decision on spectrum awards.

¹ Commission Decision 98/2007 of 14 February 2007 on the harmonised use of radio spectrum in the 2 GHz frequency bands for the implementation of systems providing mobile satellite service, Art. 3.

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

ONDAS notes that the Article 95 Decision will likely include pan-European geographic coverage commitments – based on the percentage of the land mass and/or the population of each Member State reached by an operator’s service – that selected operators will be required to meet, either at commencement of service and/or within a stated number of years (e.g., seven years from the Commission decision on spectrum awards). Further, the Article 95 Decision may make national (Member State) authorisations for MSS service and/or CGC operation contingent upon compliance with such coverage commitments.

ONDAS supports the concept of geographic coverage obligations in the MSS selection and authorisation procedure. ONDAS agrees with Ofcom, however, that CGC licenses should not include specific national CGC network roll-out obligations. A selected operator should be free to determine how to meet the geographic coverage commitments established in the MSS selection procedure, including how and when – and, indeed, whether – it intends to implement CGC networks in particular Member States.

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

ONDAS agrees that CGC licenses should be provided on a technology neutral basis. However, as discussed further below in our response to Questions 9 through 11, ONDAS believes that the CGC licensing fee structure proposed by Ofcom discriminates against non-geostationary MSS satellite technologies designed to minimise the usage of CGCs.

As regards service neutrality, ONDAS notes that, under the Commission’s harmonising decision, the 2 GHz bands have been allocated to the MSS, and that any other use of the bands may not cause harmful interference to, nor claim protection from, MSS systems.² Accordingly, rights of use granted under CGC licenses must reflect the priority accorded MSS.

Question 8: Do you agree that CGC licenses 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?

² Commission Decision 2007/98 of 14 February 2007 on the harmonised use of radio spectrum in the 2 GHz frequency bands for the implementation of systems providing mobile satellite service, Art. 3.

Given that CGCs are an integral component of MSS systems and that the Article 95 Decision is intended to lead to the selection and authorisation of MSS systems on a pan-European basis, ONDAS questions whether the tradability of CGC licenses on a national basis is feasible. Such tradability would also seem to run counter to the requirement of the Framework Directive that transfers of rights of use must not result in a change of use of radio spectrum that has been harmonised through Community measures³ Accordingly, ONDAS believes that CGC licenses should not be fully tradable. However, MSS operators should be able to transfer a CGC license to a third-party operator for legal, tax or other structural or commercial reasons.

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

Question 10: Do you agree that the license fees should be set at around £ 554,000 per 2x1 MHz?

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.

The use of opportunity cost analysis to establish the CGC license fee is highly problematic. ONDAS questions in particular Ofcom's conclusion that the "correct measure of the opportunity cost [of the CGC spectrum] is the best alternative use of the spectrum *in the absence of the constraint imposed by the EC Decisions.*" (Consultation Document, Section 8.27) (emphasis added). For systems seeking to provide service in Europe, the "constraint imposed by the EC Decisions" is a fundamental condition of operation in the 2 GHz bands. We know of no principled economic or legal basis on which an opportunity cost analysis of the bands might ignore this constraint.

Because the spectrum has been harmonised for MSS use throughout the EU and the Member States have committed to award national rights of use to operators chosen through the MSS selection procedure, there effectively is no "alternative use" to which the 2 GHz bands may be put in Europe. Although a Member State may in principle authorise an alternative use of the spectrum, any such use would be required to operate on a no-interference, no-protection basis with respect to current and future MSS systems and would therefore be burdened with power and coverage constraints which would likely foreclose the use of the spectrum by terrestrial mobile applications.

Accordingly, the opportunity cost of licensing the selected MSS operators to use the spectrum for CGCs may most appropriately be viewed as equal to, or approaching, zero.

³ Directive 2002/21 of 7 March 2002 on a common regulatory framework for electronic communications networks and services, Art. 9(4).

Ofcom's proposed CGC license fee of £554,400 per 2 x 1 MHz is based on the AIP rate assessed for 2G cellular networks operating at around 1800 MHz. ONDAS believes that the comparison between the 2 GHz and the 1800 MHz bands is inappropriate. MSS systems aggregate a customer base across the multiple jurisdictions included in a system's satellite footprint; the CGCs supporting an MSS system are *local, supplementary* networks designed to complete the reception of a satellite signal in areas which the satellite does not reach or where the signal is blocked by obstructions. By contrast, the 2G cellular networks are *primary, terrestrial* networks operating on a *national* basis and servicing a dense national customer base. Further, a comparison between the 2 GHz and 1800 MHz bands is inappropriate since MSS operators will face specific obligations (e.g. substantial European geographic coverage requirements) that 2 G cellular operators do not.

Ofcom states that it is necessary to apply AIP to CGC licensing in order to fulfill Ofcom's statutory duty of securing optimal use of the spectrum. In ONDAS' view, the EC Decisions reflect a policy judgement that optimal use of the spectrum will be obtained through the co-ordinated selection and authorisation of systems providing MSS services on a pan-European basis. Further, the selection procedure will take into account, among other criteria, the "spectrum efficiency" of the applicants.

Thus, there is no need to apply AIP in CGC licensing to achieve optimal spectrum use. In fact, the effect of high CGC license fees may be to discourage MSS operators from using any CGCs at all, and to rely solely on their satellite segment for service provision, thereby discouraging efficient use of the spectrum. Thus, the imposition of the proposed fees would be disproportionate to the objective of optimal spectrum use, and inconsistent with the Authorisation Directive, which constrains the imposition of license fees except where necessary to ensure optimal use of spectrum.⁴

Following on the above point, ONDAS notes that a wide variety of MSS systems may be proposed in the selection procedure. Some may require extensive CGC networks across national territories; some may require relatively few CGCs; and some may require no CGCs at all.⁵ We note in particular that certain proposed non-geostationary satellite (NGSO) MSS systems, such as the ONDAS system, have been designed to provide a reliable service in Europe using only a small fraction of the CGCs required by geostationary satellite (GSO) systems. Yet, if we understand the proposal correctly, Ofcom is proposing to charge operators using CGCs the same (high) license fee, regardless of how many CGC networks they implement in the UK.

This structure effectively penalises operators that rely on satellite infrastructures designed to minimise the use of CGCs as compared to operators whose space segments require extensive terrestrial infrastructures in order to deliver a reliable quality of service. Further, the structure also fails to reflect the lower administrative costs involved in authorising and managing MSS systems with few CGCs as compared to systems employing extensive

⁴ Directive 2002/20 of 7 March 2002 on the authorisation of electronic communications networks and services, Art. 13.

⁵ See Final Report of CEPT in response to the Radio Spectrum Committee's Mandate on 2 GHz MSS, at p. 12.

CGCs. As such, the proposed structure is inherently discriminatory and, thus, contrary to the Authorisation Directive.⁶

Finally, we note that CGC license fees for the UK cannot be considered in isolation of potential action by the other EU Member States. Selected operators will likely face obligations to provide MSS service to a substantial percentage of the land mass and/or the populations of *each* EU Member State. If all 27 Member States were to set CGC license fees at the level proposed by Ofcom, a 2x15 MHz MSS system would face licensing fees approaching £ 225 million per annum; even if the fee charged by each Member State were scaled on a per capita basis to that being proposed for the UK, the annual licensing fee would still approach £70 million. ONDAS submits that licensing fees of this magnitude will make the business case for an MSS system unsustainable, unless the system is able to operate without CGCs.

For the reasons stated above, ONDAS would urge that Ofcom establish CGC license fees based on the recovery of administrative costs involved in managing the spectrum concerned. Further, the CGC license fee should take into account the number of CGCs that will be employed.

⁶ Directive 2002/20 of 7 March 2002 on the authorisation of electronic communications networks and services, Art. 13.