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OFCOM
To: Mr. Michael Richardson
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Brussels, 22 April 2010

Re: Applying spectrum pricing to the Aeronautical sector – a second consultation. Closure date: 22 April 2010

Introduction

SITA – Societé Internationale de Télécommunications Aeronautiques – was created as a cooperative society under Belgian law in 1949 by a number of leading European airlines, such as BA. Even after more than 60 years of existence SITA's role and focus remains to facilitate and integrate IT & Comms solutions for the Air Transport Industry ('ATI') across the Globe.

We would like to thank OFCOM for the opportunity given to comment to the second consultation related to OFCOM's proposals regarding AIP charging for the civil aviation sector's use of dedicated aeronautical frequencies in the VHF band.

While we will first answer in short to OFCOM's questions raised, we would like to stress that the remainder of this document is the most important part of our contribution. Our comments and criticisms do not always fit well with the questions OFCOM defined.
In the following part, after answering the OFCOM consultation questions, we will limit our comments and remarks to three main criticisms we have related to the current OFCOM proposals under consultation:

1. *OFCOM's deemed powers to charge above admin costs;*
2. *AIP not fit for purpose for civil aviation;*
3. *Disincentive to drive towards more efficiency?*

We trust OFCOM will read our contribution with interest and take it into due consideration. We would be available for further exchanges on this matter.

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OFCOM Consultation Questions

Question 1: Do you consider that our proposed fee rates for licenses in the aeronautical VHF frequencies are appropriate?

SITA response: See answer to question 6.

Question 2: In devising our revised proposals, have we identified all of the aeronautical uses of VHF communications frequencies which require a distinct approach to fee setting, as set out in tables 5 and 6?

SITA response: The tables 5 and 6 seem to cover all uses.

Question 3: Do you agree with our proposal not to charge any fees for Fire assignments?

SITA response: Yes

Question 4: Do you agree with our proposal to set a £75 fee for licenses in any of the sporting frequencies?

SITA response: No comment

Question 5: Do you agree with our proposal to set an annual fee of £19,800 per ACARS or VDL assignment, with no variation related to the number of transmitters?

SITA Response: This question seems inaccurate because table 5 shows for ACARS a fee of £9,900 and only for VDL a fee of £19,800. SITA assumes that the OFCOM proposal to apply the fees to ACARS and VDL per frequency with no variation related to the number of transmitters is based on the recognition of the much greater spectrum efficiency and questions therefore why OFCCOM maintains any AIP fees for this relatively much more effective use of the aeronautical spectrum. If OFCOM insists on applying Administered Incentive Pricing to the VHF band to incentive optimal use of the spectrum OFCOM should apply the AIP fees only to the relatively inefficient voice use of the spectrum and charge no AIP fees for much more efficient ACARS use and the even more efficient VDL use which, thanks to its higher performance modulation scheme, extracts 10 times more capacity from the 25 kHz channel than ACARS.

Question 6: Do you consider that our proposed general approach to phasing-in fees for use of the aeronautical VHF communications channels are appropriate? If there are particular reasons why you consider that any user or group of users would need longer phasing-in periods, please provide any supporting evidence for us to consider.

Specifically, do you have any evidence for us to consider that would support either of Options 1 and 2 for the highest proposed fee in this sector?

SITA Response: The OFCOM application of Administered Incentive Pricing to aeronautical VHF frequencies is not appropriate because it would primarily impact the biggest user of the band, UK National Air Traffic Services, who would pass the cost on to airspace users and would have no incentive to reduce the costs by reducing their use of the spectrum. For OFCOM AIP charges applied to a UK ATC provider to make the provider reduce its spectrum use the UK government would need to change the UK aviation law that requires the CAA to issue a single licence for provision of enroute ATC over the UK (currently issued to NATS) to a new system in which they would licence multiple enroute ATC providers to offer the use of different routes over the UK. These ATC providers could then compete on price enabling the airlines to choose the lower cost provider which would presumably offer that more competitive price by minimizing its AIP charges for spectrum usage.

Question 7: Do you have any further quantified information to contribute to the analysis of financial impacts of the proposed fees on particular spectrum users, as set out in Annex 5? We would like to publish all responses, but will respect the confidentiality of any material which is clearly marked as such.

SITA Response: No

Question 8: Do you consider that our assessment of the impacts of our proposals has taken full account of relevant factors? If you consider that there is additional evidence that would indicate particular impacts we should take into account, we would be grateful if you could provide this.

SITA response: The assessment of the impact fails to address the obstacles to AIP achieving any reduction in spectrum usage posed by, amongst others, the concessioned by law characteristics for the provision of Air Traffic Control services in the UK and by the ICAO and Eurocontrol rules for spectrum usage that must be complied with by all the spectrum users.

The following pages explain in more detail some of the key issues, criticisms we have with OFCOM's AIP proposals.

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1. OFCOM's mandate, powers to impose charging above admin costs for non-telecoms

OFCOM has stated in this second consultation several times that it agrees and accepts that the UK is bound by international law.

EU law is a unique international legal system under which the EU Member States, such as the UK, have accepted the supranational and binding character of EU law, as it exists in its many forms and policy areas.

In relation to EU's public telecoms markets, in the late 90s the EU liberalized and opened these markets through the first set of (ONP) regulations and directives (the UK was well ahead and already liberalized in the 80s). The first package of EU Telecoms rules was reviewed at the beginning of the last decade, culminating into the so-called New Regulatory Framework for Electronic Communications. This second package of 5 closely linked Directives has yet again recently been reviewed (end of 2009).

The history of EU telecoms liberalization and the regulatory tools underpinning it are, and remain, important, also in relation to this OFCOM consultation.

It is clear, when reading e.g. 'Whereas' section 19 of the EU Framework Directive 2002/21/EC carefully that the EU underlines and confirms that radio spectrum is used *in part* as an input for regular, wireless telecoms services (called 'electronic communications' now to adhere to the principles of technological neutrality and convergence), and these exist in many forms indeed.

This text (underline added):

'(19) Radio frequencies are an essential input for radio-based electronic communications services and, in so far as they relate to such services, should therefore be allocated and assigned by national regulatory authorities according to a set of harmonised objectives and principles governing their action ...'

However, this also clarifies and confirms in relation to the *scope* of the EU Electronic Communications Regulatory framework that a part of the EU radio spectrum, as managed by the Member States, has other uses and therefore should remain out of scope of this (telecoms) regulatory framework.

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Civil aviation's sector use of aeronautical frequencies indeed rolls up under the wider domain of Public Service Policy, and the civil aviation sector is heavily regulated in itself, with good reason obviously.

Therefore, in countries where this is not already the case, regulation of the civil aviation sector – such as its usage of aeronautical frequencies – should be left in its entirety to the dedicated authorities, such as CAAs or DfT etc.

Further, Articles 13 and 1 of the EU Authorisation Directive read in conjunction with article 8 of the EU Framework Directive deem to conclude that the EU Telecoms Framework, looks after regular telecommunications ('internal market for electronic communications'), and that any national regulator measures taken to impose additional fees, on top of regular administrative fees, should *take into due account the Framework objectives of Article 8.* These objectives clearly link into (public) telecoms markets objectives.
Therefore, we **conclude** that any suggested fee structures beyond administrative fees could only be imposed if necessary with aim to serve one of the (public) telecoms internal market objectives as mentioned in Article 8 Framework.

The text of Article 13 Authorisation Directive 2002/20/EC (underline and bold added):

'Fees for rights of use and rights to install facilities

Member States may allow the relevant authority to impose fees for the rights of use for radio frequencies or numbers or rights to install facilities on, over or under public or private property which reflect the need to ensure the optimal use of these resources. Member States shall ensure that such fees shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose ***and*** *shall take into account the objectives in Article 8 of Directive 2002/21/EC (Framework Directive).'*

We conclude therefore that there is no legal basis under EU law to impose greater than admin charges for usage of aeronautical frequencies, which is out of scope from the EU Electronic Communications Framework. Such could only be done, under stringent conditions in relation to wireless / radio telecoms markets, as 'administrative fees only' are the rule. Moreover we feel that (administrative) charging mechanisms, if any, should be rooted in aviation sector specific law and regulations.

The UK is obliged to transpose / implement EU law into national law. In relation to these EU sector specific telecoms rules, OFCOM intends to pull now incorrectly a domain (public service / civil aviation use of frequencies) into scope and its deemed mandate, powers to apply this specific (AIP) charging mechanism, above and beyond administrative costs.

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Moreover, OFCOM starts the consultation by citing UK Law in Sections 13 and 3 WT as its legal basis to do this. In our reading and analysis Section 3 WT also indeed seems to suggest that only part of the electromagnetic spectrum, the part available for 'wireless telegraphy', would be in scope. Again this supports the conclusion that there is also a part of spectrum, such as internal civil aviation / public service spectrum, which would not be not in scope of the WT Act. The term 'Wireless Telegraphy' seems to be a historic, old school term, under the banner of which nowadays all radio-based telecoms services are grouped.

Therefore, both EU and UK law deem to conclude that OFCOM is arguably going beyond its powers on this matter. That is a key issue to start with.

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2. AIP not fit for purpose

AIP is not 'fit for purpose' as a tool for the ATI.

OFCOM's thinking and theory could work, as OFCOM claims, states indeed, in relation to traditional wireless / radio telecoms markets.

In a traditional (public) telecoms market setting the theory would work to provide incentives, as a result of AIP charges, to the market to organize spectrum use in such a way that the 'balance is right'. Market forces and functioning would create what 'efficient use' would be.

This however assumes choices and flexibility for actors on these markets, and also - and we believe OFCOM has not addressed this well - an opportunity to make swift decisions and implement these. ATI's characteristics are quite different and telecoms market thinking does not work for the ATI.

OFCOM's (economic) theory to impose AIP charging basically comes down to answering either one of these questions with 'Yes' (see page 11 of the consultation):

- Is there flexibility, are there alternatives? Answer is 'No' for the ATI as the aeronautical spectrum bands dedicated for internal usage by the civil aviation sector are coordinated and harmonized at Global level as a result of ICAO and ITU decisions – binding instruments of international law to which the UK also is a Signatory State. Few sectors, if any, are so clearly cross-border and truly international, global as civil aviation is, hence the critical importance of this.
- Is there excess demand, over (limited) supply that can be influenced by fees? OFCOM claims 'Yes', and basically uses this as a coat hook for this entire AIP charging proposal.

Even if there was excess demand, we feel that this issue cannot be influenced simply by imposing (AIP) fees. Those fees just hike up costs for the sector and/or may negatively impact the ticket prices for UK passengers. The sector is well aware that it needs to run its 'mission critical' radio spectrum applications for safe and secure civil aviation within the parameters 'given', through ITU and ICAO instruments. If there would be risks, problems related to excess demand, such would drive the sector, its specific regulation and the dedicated authorities to act. That creates in itself the incentives for the sector to change and to work diligently towards modernizing, improvements and increased efficiency.

So - the second answer should have also been 'No', and as the first question is also answered with 'No', the double 'No' should have as a consequence that OFCOM would refrain from imposing AIP.

As explained above we also feel that the suggested usage of the AIP charging tool for the aeronautical sector creates an 'oil spill' effect: OFCOM's traditional regulatory mandate and tasks related to its natural comfort zone - regulating the UK's public telecoms (and broadcasting) markets – spilled out into other sectors, such as civil aviation.

Moreover, if the purpose of introduction of AIP charging would be to create incentives for users to make more efficient use of these dedicated aeronautical spectrum bands and provided this were to be successful it would, at best, mean that spectrum would be 'freed up' for other aeronautical uses, given the specific ATI internal character and limitations with these spectrum bands. ICAO rules clearly stipulate that the aeronautical spectrum bands cannot be for 'public correspondence'. In other words, these bands are dedicated to internal civil aviation sector usage and cannot be used for regular telecoms services. This runs again counter to the notion of 'flexibility' in relation to AIP having 'efficiency driving effects'.
It would not mean that spectrum would be 'freed up' for other uses within the UK, outside the aviation sector, which is what we think to be reading in the OFCOM consultation as a desired outcome. The aeronautical bands remain dedicated, with good reason, to civil aviation sector use.

Price hikes will not provide the incentives OFCOM envisages, it will have mere effect as additional taxes on the aviation sector, which in the end would either have negative impact on ATI actors bottom line results and/or could increase the ticket prices for the UK passengers.

A better solution - *and already happening without AIP imposition* - would be in our minds to work within the ATI at international level with the dedicated aviation authorities, governments and bodies towards more efficient use of assigned aeronautical frequencies.

As an example, we mention the move and adoption of VDL Mode 2 technology for VHF ACARS Data communication, or the adoption and implementation of the Single European Sky II (SES II) package.

These are examples of trends, developments, towards more efficient running of operations in the civil aviation industry, for which aeronautical frequency usage may be required, without the need for (additional) charges to create incentives.

Further, relative excess demand in relation to supply, if it would exist, seems to be the driver for AIP to trigger increased efficiency. In our opinion, there would also be other, less intrusive ways, such as AIP imposition, to check on efficient use of frequencies, as a 'supply side fix'. If there would be cases of 'hoarding' or aeronautical frequency bands sitting 'idle' there would be other ways a regulator could use to secure efficient use. For instance checking of (planned) usage at regular intervals could be done with assigned

users and such would be a standard and expected task from authorities and regulators anyway. If certain parties with usage rights to aeronautical frequencies would not use these for a good while, these usage rights could be withdrawn and re-assigned if possible to other aviation sector actors that would use these. No need to apply AIP, and this would also yield efficiency results.

Looking abroad, in most EU jurisdictions, and beyond, e.g. in Germany and The Netherlands, the governments have indeed made clear policy decisions / programs that underpin that the public service goal of safe and secure civil aviation is paramount.
Assigning sufficient dedicated radio spectrum and clear safety rules that focus on preventing interference for the civil aviation sector, is common place elsewhere. The costs related are accepted, absorbed as public service costs.

Please note however that we are not saying that the use of aeronautical frequencies should always be free of charge. If fees are imposed, these fees should be linked to the costs of administering, managing and regulating the usage of these frequencies. 'Admin costs only' therefore, and the legal basis for this should be in aviation law and regulations.

A principal difference of view is that elsewhere the radio spectrum is regarded as a transmission platform which can be used for radio-based telecoms, but also for non-telecoms services, such as various public service requirements for spectrum.

Therefore the entire radio spectrum could be divided in two main 'blocks': radio spectrum as an input for regular telecoms services versus radio spectrum for other (public service) uses.

This is in our view, and as explained above under our first comment, in line with EU law, and we believe that also the Wireless Telegraphy Act provides scope for such approach and that the scope of these regulatory regimes has its boundaries.

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3. Dis-incentive to drive towards efficiency?

In case OFCOM would decide to move forward, despite our concerns and criticisms and the objections made by many ATI actors related to this debate, we do not understand why the suggesting pricing for ACARS and VDL would be so high.

If the entire AIP exercise is floating on imposing incentives to drive the ATI towards more efficient use of aeronautical spectrum, a starting point should be to look at how the cake-chart looks in terms of current usage of aeronautical frequencies.

In other words, what services use the highest portions of spectrum at the moment?

ACARS and the next generation service VDL are currently modest users of aeronautical spectrum in the UK, and beyond. This is because the ACARS and VDL data link protocols allow a service provider's ground stations across a region such as Europe and therefore across the UK to share a single frequency and to not need dedicated frequencies like most VHF voice ground stations.

If the drive is to create incentives for the ATI to make more efficient use of dedicated aeronautical spectrum, the best results and most impact is to be expected from increased efficiency by services that make the highest relative use of aeronautical frequencies.

As a demonstration that the ATI sector is already working actively on increasing the efficiency of aeronautical spectrum usage, we would like to refer to the current developments related to ACARS and VDL, services that SITA helps to develop for the ATI.

The next generation development in this area is already there and will be progressively rolled out in coming years, VDL. EU Aviation sector developments and policy, such as the adoption of the Single European Sky II (SES II) package, are also instrumental and supportive of these aviation sector modernizing changes.

The ICAO Aeronautical Mobile Communications Panel that defined the VDL protocol selected the modulation scheme that provides the highest data rate possible in a 25 kHz channel with a range of 200 nautical miles, which is the Digital 8-Phase Shift Keying scheme at 10.5 kbuad giving a data rate of 31,5 kbit/sec. As this is the highest possible capacity achievable in a VHF channel it would make no sense for OFCOM to apply AIP pricing to penalize its use.

VHF data link service providers would prefer to provide only VDL service but need to keep providing ACARS service because airlines face significant investment costs per aircraft to upgrade their aircraft to be able to use VDL. Airlines may delay that upgrade until they need to equip to comply with the SES regulation requiring use of Air Traffic Control data link over VDL. The airline cost for avionics upgrades becomes too high for

them to invest, also due to potential increases in ACARS costs as a regulatory requirement to pay AIP fees.

We hope to have clarified that ACARS and VDL are amongst the most efficient aeronautical sector services in existence right now.

Therefore we cannot understand why then these services would have to be charged with these high AIP fees: logically this would mean that these – already efficient – aeronautical services would be pushed strongest towards further efficiency?

Logically such could be expected to have greater beneficial impact from the highest users of aeronautical spectrum and/or legacy aeronautical frequency services.

Again, we strongly believe that the ATI is already well aware of the issue that aeronautical frequencies have fixed boundaries and are a dedicated and sector internal resource assigned by instruments of international law. In other words, the ATI has to 'make do' with these bands and is working at international level and through sector coordination to improve and drive towards more efficient use of aeronautical frequencies. This is happening already now, without imposing AIP charging. The AIP charging mechanism therefore adds nothing, apart from further costs for the civil aviation sector.