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Re: **Recognised Spectrum Access ("RSA") for Receive Only Earth Stations in the Bands 1690 – 1710 MHz, 3600 – 4200 MHz and 7750 – 7850 MHz**

On 8 July 2010, Ofcom published a consultation document seeking comment from stakeholders regarding the introduction of Recognised Spectrum Access (RSA) for receive-only earth stations in the 1690-1710 MHz, 3600-4200 MHz and 7750-7850 MHz bands. The consultation was motivated by a specific request from some receive-only earth station operators. Reportedly, these operators seek 'formal recognition' of their spectrum use.

Using RSA, Ofcom proposes to formally recognise spectrum use by the receive-only earth station operators pursuant to the 2003 Communications Act. Ofcom's objective is to treat receive-only earth stations in the aforementioned spectrum bands on a comparable basis to licensed users operating in the same bands. The Ofcom proposals in this consultation cause ASTRA (GB) Ltd substantial concern.

ASTRA (GB) Ltd is SES ASTRA's affiliate company based in London. Its role is to develop broadcast, enterprise and government services opportunities in the UK and Ireland. They also provide our clients with marketing and technical support. Over 11 million UK households have access to digital satellite services via the ASTRA satellites at the 28.2 east orbital position. This well-established audience continues to grow, offering opportunities for new television, radio and broadband services.

ASTRA (GB) Ltd fully supports the comments submitted by ESOA and SAP REG as well as those of Intellect. For the reasons stated in the aforementioned submissions and this SES contribution, ASTRA (GB) Ltd firmly believes that RSA is inappropriate for the satellite sector. Accordingly, ASTRA (GB) Ltd respectfully submits the following comments in response to Ofcom's consultation proposals and questions.

As described by Ofcom, RSA has several key characteristics. ASTRA (GB) Ltd considers that each of the five (5) principles listed below is a matter of concern:

1. *RSA is voluntary:*
   Ofcom states that unless a receive-only earth station is covered by RSA, there will be no protection against other services introduced in the band. Since Ofcom intends to "plan terrestrial assignments" notably in C-band (See Section 2.26), RSA is therefore intended to enable the deployment of services that are likely to interfere with and constrain satellite services. Under these circumstances, Ofcom creates conditions ripe for interference. Ofcom further states that RSA will "provide information on where receive-only earth stations are and to give them formal recognition" (See, Section 3.5): Yet, if some operators choose not to acquire RSA, Ofcom will not have this information and the earth stations will be ignored and unprotected. In essence, despite co-primary status, RSA forces operators to seek protection and is therefore not voluntary.

2. *RSA gives rights of use that are comparable to a licensing requirement:*
   The past 10 years in Europe have seen a trend towards a simpler, less burdensome telecoms regulatory environment, including in the satellite sector. Increasingly, under EU and CEPT regimes, license exemption has been extended to several classes of equipment and transmission fostering considerably the development of wireless communications. RSA is a step backward. A regime similar to individual licensing, subject to terms, conditions and fees that are in no way favourable to the protecting or furthering of the interests of consumers or to enhanced development of the services using this spectrum.[1]

3. *RSA is subject to a fee mechanism based on AIP:*
   ASTRA (GB) Ltd fully endorses the position that SES shared with Ofcom on spectrum pricing in 2009 (see the annex) and which ESOA has reiterated in June 2010[2] in the context of the Spectrum Review on Spectrum Pricing (SRSP). In particular, we believe that AIP is neither an appropriate tool nor is it necessary to stimulate efficient spectrum use by the satellite sector. As indicated, the uncertainty caused by the potential implementation of AIP on the spectrum used by the commercial satellite sector would have a chilling effect on provision of satellite services and satellite investment in the UK specifically and Europe generally. A tool like AIP, even if deemed attractive from a theoretical perspective, can never achieve its intended goals in practical situations and is therefore more likely than not to have significantly negative consequences on the satellite sector. For instance, a key element of the AIP calculation is the definition, and subsequent determination, of the opportunity cost. This is largely a theoretical exercise which must take full account of technical considerations, the broad competitive landscape, public and consumer benefits, as well as the public good attached to spectrum for cross-border services such as satellite.

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[1] RSA not only has the same characteristics as a licence; but since the EU Authorisation Directive 2009/140/EC amending Directive 2002/20/EC (Article 5) only defines two categories of tools related to spectrum usage: individual license or general authorization, RSA seems to amount to be a proper license.

[2] ESOA Consultation Response to Ofcom's SRSP: The Revised Framework for Spectrum Pricing, 20 June 2010, available from: http://stakeholders.ofcom.org.uk/binaries/consultations/srsp/responses/esoa.pdf

4. *RSA may be traded and converted into a license;*
The convertibility element of RSA is to introduce challenging situations where operators who have originally acquired the right to receive signals without interference, thanks to RSA, would be given the right thereafter to transmit - and contribute to cause interference themselves. In practice, it is extremely difficult to imagine how it could work without a redefinition of the terms and conditions to use the same spectrum.

The tradability of RSA also seems out of order where Ofcom's claimed intent is to identify the location and characteristics of receive-only earth stations in order to avoid harmful interference to those facilities. Finally, the increased risk that would result from possible change of use resulting from convertibility or tradability is a matter of extreme concern to the satellite industry because the ability to coexist with one particular service (*e.g.,* fixed) can be very different from the ability to coexist with another type of service (*e.g.,* mobile).

5. *RSA is revocable after 5 years;*
ASTRA (GB) Ltd would like to repeat what the satellite sector has already explained to Ofcom several times and what ESOA and SAP REG again state in their submission to this consultation. That is, when making a decision to launch a new satellite and provide important satellite services to customers and consumers, satellite operators require long-term assurances that they will be able to offer their service on the market. The satellite sector enters into long-term (approximately fifteen (15) years representing the estimated useful life of a spacecraft) commitments with customers that, in turn, deliver critical services to UK consumers. Limiting the protection to use spectrum to five (5) years is therefore would actually be harmful to satellite interests and is therefore not appropriate.

Further, ASTRA (GB) Ltd would like to point out that satellite is exclusive to some of the bands identified. For instance, pursuant to the UK National Table of Frequency Allocations of 2008, the band 1690-1698 MHz is exclusive to Meteorological-Satellite. In other words, satellite is the only primary service. In such a band, there is no need to protect receive-only earth stations from other services. As a result, neither RSA nor any other protection scheme is needed.[3]

Implement a Registration Approach

ASTRA (GB) Ltd strongly prefers implementation of a simpler registration approach as opposed to the more burdensome and unnecessary RSA scheme. Such an approach seems to be the easiest means of offering interference protection to the concerned receive-only earth station operators. It is fundamentally unclear to ASTRA (GB) Ltd why Ofcom has ruled-out the option of a voluntary registration scheme as reported in the Impact Assessment (Annex 7 of the document). ASTRA (GB) Ltd considers that several comments regarding the cost-benefit analysis that was part of this Impact Assessment are debatable.

[3] ASTRA (GB) Ltd notes that in the case of radio astronomy, Ofcom has considered the RSA fees for exclusive frequency bands to be zero rated in the absence of alternative use of spectrum (RSA as applied to radio astronomy, section 4.33).

First, the option to introduce such a registration scheme would incur several obvious benefits which are not listed in the table published by Ofcom: not only would users benefit from greater recognition, but the cost to Ofcom associated with such a registration would be extremely limited, the instruments very simple and the connection with the business reality optimal. Ofcom has already registered existing receive-only earth stations. As a result, Ofcom is already aware of certain facilities in these bands and could invite all users to manifest themselves. Based on the resulting registration list, Ofcom and users of the spectrum would have all necessary information needed to engage in any necessary coordination on a case-by-case basis.

Second, with regard to costs / risks, it is unclear what Ofcom means by incentivising spectrum use at the level of equipment which receives (passively) signals from space. Moreover, we hardly see the added benefit RSA offers over a registration. We do not understand Ofcom's assertion that, by using a registration, operators would "not benefit[ing] from a formal recognition (…) under section 20 of the WT Act."

Third, with regard to trading and convertibility, no justification whatsoever is provided to sustain Ofcom's statement that trading will result in increased benefits to society. In our view, this means that usage rights associated to RSA will simply go to the hands of those having the deepest pockets, which does not seem to be Ofcom's objective when looking at the rationale of this consultation.[4]

What's the real need in C Band?

Notwithstanding the request made by some receive-only earth station operators, ASTRA (GB) Ltd understands that there is a potential need to ensure the protection of receive-only earth stations operating in C Band 3600-4200 MHz that from interference which may be caused by terrestrial systems using the same or adjacent frequency bands.

According to the UK National Table of Frequency Allocations, we note that the frequency band 3600-4200 MHz is co-shared between fixed satellite services (FSS) and fixed terrestrial services. Additionally, we remind Ofcom that EC decision 2008/411/EC referred to in the National Table of Frequency Allocations only covers the 3400-3800 MHz band. There is no allocation for mobile services in the frequency band 3800-4200 MHz so RSA would not be needed to protect this band from mobile services.[5]

The need identified by ASTRA (GB) Ltd is *not* a request for "formal recognition", as defined under section 20(2) of the WT Act 2006; but ASTRA would expect Ofcom to take care of the satellite earth stations operating in this band as part of their duty to ensure optimal use of spectrum – that is to say: without harmful interference.

[4] See section 2.3 that calls Ofcom to promote efficient spectrum management and use, economic and other benefits to users, stimulate innovation and competition.

[5] Contrary to what Ofcom seem to claim in section 2.25

Conclusion

ASTRA (GB) Ltd considers that fundamentally, RSA is neither a proportionate, nor a light-touch regulatory instrument.

There is an alternative approach in relying on an administrative mechanism whereby users register to a database held by Ofcom, which would be far better to avoid uncertainty (on risks of interference) and speculation (on spectrum rights).

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Consultation questions

Technical and geographical parameters

Question 1: Do you agree with the list of proposed RSA parameters for assessing interference and for setting fees for receive-only earth stations? Are sufficient parameters defined for a grant of RSA? If you disagree, please give your reasons and suggest alternatives.

For the reasons identified in the ESOA / SAP REG contribution, the Intellect contribution and the ASTRA (GB) Ltd comments, we disagree with the approach taken by Ofcom and its proposal to implement RSA. We believe RSA is unnecessary and overly burdensome. We recommend a simpler, less burdensome registration scheme.

Fees for RSA

Question 2: Do you agree with the proposals for introducing fees for RSA for receive-only earth stations in the bands concerned on the basis of parity with existing PES fees (with a minimum fee of £500) and that the full fees be implemented from the date of grant of RSA? If you disagree, please give your reasons and suggest alternatives.

ASTRA (GB) Ltd does not agree with the implementation of a spectrum pricing policy based on AIP for the registration of satellite ground equipment and protection against harmful interference. As previously noted in our comments to Ofcom during the SRSP consultation, cost-recovery fees, based on administrative costs incurred by the undertaking of monitoring and keeping track of receive-only earth stations would seem sufficient.

Term of grant

Question 3: Do you agree that grants of RSA in the bands should normally be on a rolling annual basis, with a 5-year revocation period?

Satellite businesses typically run on a 15-20 year business cycle. During this period, operators need to be sure that they will be able to satisfy long-term commitments to customers and consumers. Short term arrangements and the 5-year revocation period would not provide the level of security required by the satellite business. Having RSA subject to a 5 year revocable term does not match the reality of our business and, therefore, would in the end not suit UK consumer or commercial interests.

Tradability and conversion

Question 4: Do you agree that grants of RSA in the bands should be tradable and that grants of RSA and WT licences should be inter-convertible? If so, do you agree with our proposal to model the process for trading and conversion on that for RSA for radio astronomy?

ASTRA (GB) Ltd considers that convertibility and tradability of RSA add unnecessary complications, risks and would even create serious uncertainty on the type of rights held by spectrum users.

The process for granting RSA

Question 5: Do you agree with our proposed procedure for considering applications for the grant of RSA to receive-only earth stations. If you disagree, please give your reasons and suggest alternatives?

No comment.

The Case for Introducing RSA

Question 6: Do you agree that RSA for receive-only earth stations could provide greater security against interference and help promote optimal use of the 1690 - 1710, 3600 - 4200 and 7750 - 7850 MHz bands? If not, please explain why and describe any alternative mechanism that you consider to be necessary.

As noted in the ESOA / SAP REG and Intellect submissions as well as in this contribution, ASTRA (GB) Ltd neither believes that RSA will provide greater security against interference nor do we believe that it would help promote optimal use of the spectrum bands. We believe that a voluntary registration scheme, feeding the existing database, would suffice to identify all existing users thereby enabling any necessary coordination.

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