European Satellite Operators Association

Thursday, 16 September 2010

ESOA RESPONSE TO OFCOM RSA CONSULTATION

On 8 July 2010, Ofcom published a consultation document soliciting comments on its proposal to apply Recognised Spectrum Access (RSA) to receive-only earth stations in the bands 1690 ï 1710 MHz, 3600 ï 4200 MHz and 7750 ï 7850 MHz.

As Ofcom is aware, ESOA, SAP REG and their individual members have consistently expressed grave reservations over proposals to apply RSA to the commercial satellite sector. We have taken the position from the outset that RSA is unnecessary and would introduce a disproportionate and unnecessary burden on satellite users to the detriment of the entire satellite industry and, most importantly, to millions of users of satellite services in the United Kingdom and in Europe.

ESOA and SAP REG agree that steps needs to be taken to ensure that terrestrial facilities in the UK, especially those providing mobile services, will not cause unacceptable interference to existing receive-only earth stations. In our view, Ofcom should ensure this through coordination between the parties concerned. It is unclear in the consultation document, however, whether Ofcom has this intention. For reasons discussed below, we believe strongly that ensuring this protection does not require and should not include commercial tradability or conversion to licence elements.

Ofcomôs July 2010 proposal would apply RSA to a subset of current commercial satellite operations in the UK. This application would represent the first intrusion of the RSA concept into the satellite industry. As such, we remain seriously concerned over the broad implications of the concept as applied in this proceeding and in general. ESOA has received legal advice on the limitations of the RSA concept and will review what Ofcom finally adopts in light of that advice. In the meantime, we submit the following comments to this proposal rather than responding to the specific questions Ofcom asked in the consultation.

1. Ofcomôs obligation to ensure that satellite services can operate without harmful interference does not require implementation of RSA

   (a) Receive-only fixed satellite service (FSS) earth stations are entitled to protection from interference irrespective of RSA grants

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At its July workshop on RSA, Ofcom stated that receive-only earth stations "currently have no formal recognition in the Ofcom assignment process." This statement, similar to others in the consultation document, only reflects that "formal recognition" is a term of art in the Wireless Telegraphy Act 2006 (WTA), which is given to holders of RSA. However, Ofcom's obligation to take the existence of radiocommunication services into account is not based solely on licensing or even on the proposed RSA "formal recognition." Instead, Ofcom is obliged under both Section 3 of the WTA and Section 154 of the Communications Act 2003 to have regard to the extent to which spectrum is "available for use." Such spectrum availability for use does not necessarily depend on any type of formal Ofcom recognition.

The spectrum under consideration in this proceeding is made available for use by receive-only stations through the UK's international obligations established in the Radio Regulations (RR) of the International Telecommunication Union (ITU). Regulators have, on the basis of the European Union and ITU framework, a basic duty to ensure that radiocommunication services can co-exist on an interference free basis.[1] Most countries do this by issuing rights of use for emissions explicitly under licensing schemes while protecting reception that may be licence-exempt automatically as part of their remit. In fact, in an effort to simplify and streamline licensing schemes, the trend over the last two decades has been to exempt receive-only earth stations from any form of right of use regulation. This approach is consistent with policy that is the bedrock of the EU electronic communications regulatory framework.

We consider that a form of registration, as we discuss below, could achieve all the necessary protection from harmful interference that Ofcom wants to provide. Ofcom's proposals for RSA are thus unnecessary.

(b) Protecting FSS earth stations from interference does not justify or require RSA

In its consultation paper, Ofcom states that the formal recognition provided by RSA would allow it to take account of receive-only earth stations. Ofcom further says that it cannot plan terrestrial assignments without knowing where those receive-only earth stations are located.[2] Despite this claim, Ofcom also says that there will be only a minor administrative impact from applying RSA because it basically already knows where all the earth stations likely to be affected by this proceeding are located. This inconsistency appears to undercut any claim that applying RSA is objectively justified or

1 For instance, EU Framework Directive Article 8a(1) requires Member States to take into consideration the "various interests of radio spectrum user communities with the aim of optimising the use of radio spectrum and avoiding harmful interference." ITU RR Articles 3 and 15 sustain a basic "duty of care" to avoid interference.

2 Ofcom says at sections 2.5 to 2.6 that it seeks ways to better plan terrestrial services based on better knowledge of the location of receive-only satellite earth stations. If Ofcom is considering introducing spectrum management tools in this context, then it should launch a dedicated consultation to that effect. Otherwise, satellite earth station operators have no idea of what they are buying from the RSA approach.

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proportionate, which Ofcom understands are legal requirements for its actions under both the EU regulatory framework and Section 9(7) of the WTA.

Ofcom thus already appears to know where most of the affected earth stations are located. It also could can find out locations of any additional receive-only earth stations through a registry (for which Ofcom has ample legislative authority). Implementation of RSA for a very limited number of affected antennas when a simpler, more targeted and proportionate registration approach would suffice is unnecessary.

(c) Ensuring efficient spectrum use does not justify RSA

It appears that a small group of affected parties may have sought protection for their receive-only earth stations. We believe that the least burdensome means of ensuring efficient spectrum use is the preferred response to such requests. In this case, a simple registration approach rather than RSA is sufficient to satisfy the requested protection.

In this regard, Ofcom describes RSA as a way to apply its spectrum market philosophy to the satellite sector. It says that RSA permits the application of administered incentive pricing (ñAIPò) and spectrum trading, ñto incentivise users to make more effective choices about the way in which they use spectrum.ò This result is not, however, what satellite operators are asking for when they seek protection from interference.

The satellite community has noted previously the limitations of AIP in the satellite sector in numerous submissions to Ofcom.[3] In contrast to Ofcomôs theory, the economics of the commercial satellite sector indicate that AIP is unnecessary, would be counter productive and would not promote optimal spectrum use. By focusing on AIP / RSA for receive-only earth stations, Ofcom overlooks the significant incentives that satellite operators already have to ensure efficient operation for earth stations and space stations.

Market forces already stimulate efficient spectrum use by the satellite sector. Due to the long useful life of satellites (approximately 10 - 15 years), coupled with high and increasing demand for satellite bands, market-based drivers provide significant incentives for satellite operators to maximise efficient use of spectrum. Strong, motivating market forces and the goal to maximise the commercial usefulness of each spacecraft assures that satellite operators make every effort to use spectrum as

[3] In particular, on 20 June 2010 ESOA expressed its views on AIP in comments responding to Ofcomôs consultation on ñSRSP: The Revised Framework for Spectrum Pricing.ò See also SAP REG comments to Ofcom on AIP in the context of 2 GHz MSS, Doc. SAP REG(08)94, 1 December 2008. See also ESOA response to Ofcomôs consultation on ñAuthorisation of terrestrial mobile networks complementary to 2 GHz mobile satellite systemsò submitted on 7th January 2009.

efficiently as possible through tools such as frequency reuse, spot beams and increasing onboard efficiency in each generation of space station.

Applying AIP to receive-only earth stations would distort the economics of the service, essentially by ñtriple chargingòfor the use of spectrum by the uplink, the space station and the downlink. Significant regulatory charges are associated with the operation of satellite space stations. Regulatory fees already are applied to permanent earth stations that transmit to receive-only earth stations. By imposing yet another level of regulatory fees, the effect may in fact be the opposite of ensuring efficiency, and would be more likely to impede the continued availability of satellite services that provide clear public benefits.

Moreover, the inherently international nature of satellites and ITU allocations limit alternative uses of spectrum and undercut the AIP theory. Satellites are typically designed to cover broad regions and not solely a single national territory. The satellites that serve the UK market almost exclusively are regional in nature. Investments in these satellites and the commercial plans associated with them are based on the ability to provide broad-based regional service and not service to a single national market. The ITU international coordination process ensures that the frequencies used by a satellite operator are available to the system without national fragmentation within the beam ï this fragmentation, however, would be precisely the result of the RSA / AIP approach. [4]

International spectrum availability is an essential element of the satellite value proposition without which the full value and public benefit of commercial satellite services can not be fully realised. Applying an RSA / AIP approach would be out of step with otherwise harmonised European satellite allocations and would be likely to fragment the provision of pan-European services. The effect would damage those UK customers and end users that rely on satellite services in their daily lives if satellite operators are hampered from providing certain services in the UK market because they are no longer commercially feasible as a result of the implementation of AIP.

(d) Enhancing operator certainty does not justify RSA

Ofcom says its proposals are ñin response to representations from receive-only earth station operators in these bands and comments made in the regulatory report of the UK Space Innovation and Growth Team [SIGT]ò(Consultation at Section 1.1). We are unaware of any commercial satellite operator (as opposed to government service operators) that has requested RSA or supported AIP as a mechanism for achieving ñenhanced certaintyòor efficient use of spectrum.

4 We note the language of ECC/DEC/(03)04, explanatory memorandum at page 2, ñThe provision of Pan European wide services will be greatly assisted when all CEPT administrations exempt the same categories of radio equipment from licensing and apply -- to achieve that -- the same criteria to decide on this.ò

In any event, Ofcom does not specify how it would practically ensure that interference is avoided through the RSA regime. Ofcom states in the abstract that through RSA it could apply the same protection that it does for rights of use, but it does not indicate how it would go about achieving that goal. Hence, satellite operators are left with a "voluntary" RSA charge without knowing what real benefits it provides.

Nor is the possibility of converting an RSA to a licence a compelling justification. These stations typically have been in operation for a very long time in an environment that at least until recently has been stable. The recent EC decision to open the band 3600 – 3800 MHz to BWA service, including mobile service is likely to change the frequency sharing environment in the near future, but this situation does not justify placing additional burdens on existing satellite earth stations.

Materials from the SIGT on space-enabled services expressed many of the concerns of the commercial satellite sector over AIP, noting that "[AIP] models do not properly describe satellite systems or how their attributes differ from terrestrial ones… ."[5] It continues by acknowledging that industry "raise reasonable arguments that satellite services have different attributes to terrestrial technologies, for instance in having international service obligations that are disadvantaged by UK-centric interpretations on spectrum pricing and licensing."[6]

2. Applying RSA to the satellite sector cannot substitute for transparent rulemaking

One of the reasons that there is an issue concerning Ofcom's purported lack of information on exempt terminals is that the agency has authorised services to operate in bands contrary to the national table of frequency allocations. It is general practice that countries maintain coherence between the national table of frequency allocations, the international framework and national spectrum policy, including licensing of services. The UK is an exception in the sense that Ofcom has deviated from the national frequency allocation table and has issued licences inconsistent with it.

The most recent example of this approach is the Freedom4 licence variation, in which Ofcom extended the terms of the licence to permit provision of service to mobile users in the bands 3605 – 3689 MHz and 3925 – 4009 MHz, despite the fact that neither the ITU RR for Region 1, nor Commission Decision 2009/411/EC nor the UK national frequency allocation table includes a primary allocation to mobile service within the frequency range 3800 – 4200 MHz.

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5 "Delivering Public Policy Through Space -- The Public Customer Perspective," Space Innovation and Growth Team, Work Group Three, undated document issued c. February 2010, at page 33.

6 Id. at page 36.

This situation leads to a confusing and non transparent environment. It also results undercuts the national frequency allocation table as an integral part of spectrum policy. Instead, it relies on ñlicensing productsò, which are not necessarily the most efficient or desired way to achieve the aim of ensuring an interference free environment. It is not good practice to deviate from the frequency allocation table by simple consultation on a licensing variation as was in the case of Freedom4.

If Ofcom were mainly concerned with enhancing certainty and ensuring more efficient use of existing allocations then it would not take such actions as permitting mobile operation of terrestrial facilities in bands such as 3800 ï 4200 MHz. Creating uncertainty by permitting services that offer the potential for increased interference cannot then in turn justify applying additional restrictions on existing uses.

3. The RSA concept should not apply to different categories of receivers in the satellite sector

ESOA and SAP REG are concerned that this proceeding is but the ñfoot in the doorò for wider application of the RSA concept to other satellite services. We urge Ofcom to recognize that there are inherent limits to the RSA concept. We further urge Ofcom not to use this proceeding as a wedge to apply the approach more widely. The satellite services to which RSA could potentially apply should be divided into several categories, for which there are different and more appropriate solutions. These include:

(a) Direct to home (DTH) receive-only earth stations

Numerous uncertainties immediately arise from any attempt to apply RSA to DTH receive-only terminals. Normally those terminals are used by consumers and there is no question of consumers converting the service to any other service or using AIP to incentivize their reception. The economics of any such consumer oriented DTH satellite service would be substantially distorted by adding new fees and charges on top ï thus harming consumer interests in a way directly contrary to Ofcomôs statutory remit. Applying RSA, whether voluntary or mandatory, would create new levels of uncertainty over the viability of the service for which very substantial long term investments and commercial commitments must be made. At a basic level, there is substantial uncertainty even over which person could hold a RSA for such consumer oriented services. For most consumer receive-only terminals, the ubiquitous nature of the use is obvious ï Ofcom does not need further regulatory procedures to recognize this use and comply with its statutory remit to protect against interference.

(b) Large receive-only earth stations / permanent earth stations (PES) and VSAT

RSA is not needed for receive-only earth stations co-located with transmit stations. Most such large stations are covered by licences that include protection for up and downlink. There is no point to introduce RSA for such stations ï protection is already possible. Further, there is no point to introducing tradability because the receive-only capability would never be traded separately from the transmitting capability. Hence, efficiency of spectrum use is not driven by the receive-only characteristics and RSA would add nothing to the mix.

The VSAT sector of the satellite industry traditionally has dealt with the risk of interference through co-ordination and licence-exempt status. Large investments and long-term planning in this sector is based on the stability of the current regime. Again, RSA would add nothing by way of spectrum efficiency or enhanced protection. At most, a system of registration would permit Ofcom to identify the location of any stations that require protection or to identify that the band is widely used by satellite facilities and hence should not be opened to other interfering uses.

(c) Exclusive bands

We urge Ofcom to recognise explicitly that RSA is not applicable to any satellite receive-only earth stations operating in exclusive bands (*e.g.*, L-band), because there is no risk for interference. As such, there is no justification for the RSA / AIP approach. Ofcom has no reason to obtain better information on terminal placement (or, if it does can rely on registration), there is no need to protect against interference, and there can be no issue of any enhanced operator confidence. The only possible result of RSA application to exclusive bands would be the possible imposition of unnecessary, unhelpful and unwanted AIP fees.

4. RSA is not an proportionate regulatory approach in light of less intrusive mechanisms

The rights that Ofcom associates with RSA (converting into a licence and transferability) are not what is sought by earth station operators requesting protection against interference. There are simpler and better ways to respond to operatorsô requests for protection than the proposed comprehensive RSA product. If Ofcom can rely on a simple and traditional instrument (*e.g.*, registration) then it should do so, especially given the very marginal and non-quantified justification that so far exists for Ofcomôs RSA proposal.

We appreciate that Ofcom has considered the registration approach, starting at section 4.68 of the consultation document, but we find the argumentation insufficient to justify RSA instead of the less intrusive registry approach. All Ofcomôs arguments are based on the justification for RSA in the first place, which as we have expressed above, is not compelling.

Thus, first, Ofcom says that registration would not provide a level of comfort. We note however, that commercial operators are not asking for the type of comfort that RSA allegedly could provide. Moreover, it is less than comforting to maintain that Ofcom will only take account of the use of radio frequencies if an RSA is in place. Ofcom already has an obligation to take account of the use of frequencies by satellite operators in carrying out its management functions. There is no explicit requirement in the Communications Act or WTA that increases this obligation based on the existence of a licence.

Second, Ofcom explains that RSA, unlike registration, permits the possibility of trading and conversion of grants to licences. This explanation collapses into the next, that RSA allows signalling of opportunity cost through the AIP mechanism, because all these arguments are based on the theory that applying RSA achieves more efficient use of spectrum. As we have explained above, however, the commercial satellite sector already has significant incentives to use receive-only spectrum efficiently, independent of any RSA impact.

Finally, Ofcom notes that a registration scheme would not be much more cost effective than RSA in terms of Ofcom's own resources. This explanation should have no impact on the calculation, as the real issues to be considered are the impact of this RSA scheme on consumers and industry – not the minor administrative costs that Ofcom might incur in fulfilling its mandates under the Communications Act and WTA.

Contrary to Ofcom's claim in this same part of the consultation document, we maintain that the RSA approach is not proportionate – the possible advantages are unquantified and unconvincing, compared to the high risk that applying RSA to commercial satellite receive-only earth stations will cause. RSA does not promote optimal use to any appreciable degree, and thus this factor cannot justify the RSA approach.

5. Conclusion

A mechanism for ensuring that Ofcom fulfils its statutory remit to protect receive-only earth stations in the C-band is needed, but the satellite community is firmly of the view that RSA is not an appropriate or proportionate mechanism for this purpose. There is no need to apply RSA / AIP for the few cases that Ofcom has already identified. We regard a registration approach as an appropriate regulatory procedure in some satellite contexts, without unnecessary imposition of spectrum tradability or conversion to licence elements. Moreover, Ofcom should state clearly the steps it will take to ensure protection by requiring and overseeing coordination (nationally as well as internationally).

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