



15 February 2005

Professor William Webb  
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Riverside House  
2a Southwark Bridge Road  
London SE1 9HA

**ESOA Response to a Consultation on:  
OFCOM's Views as to how Radio Spectrum should be managed in the UK**

Dear Professor Webb,

The European Satellite Operators Association - ESOA<sup>1</sup> - is pleased to have the opportunity to participate in the above-mentioned consultation by presenting these views.

ESOA appreciates the awareness that OFCOM has shown in its 'Spectrum Framework Review' of the specific characteristics of satellite services: namely that they involve the use of spectrum where there are unavoidable, important, valuable international issues. In this regard, we agree with OFCOM's conclusion that the allocation of radio spectrum on the basis of market mechanisms is not suitable for the particular case of satellite systems, whose footprints usually supersede national borders. .

In light of this and other particular features of our industry which we refer to below, we consider this consultation as vital in the process of moving towards an approach for spectrum management that is appropriate for all users. We remain concerned about the coordination with other national policies in the framework of the European Union and the CEPT. Thus we hope that you will find our specific responses to your questions useful and we remain at your disposal for any further clarification you may require.

Sincerely,

Aarti Holla-Maini  
Secretary General

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<sup>1</sup> ESOA's members include EurasiaSat SAM, Europe\*Star, Hellasat, Hispasat, Inmarsat Ventures PLC, New Skies Satellites B.V., Nordic Satellite AB, SES Global, Telenor, Telespazio, Alcatel Space, Arianespace, Astrium and Turksat . For more information on ESOA, please visit the association's website at [www.esoa.net](http://www.esoa.net)

## RESPONSES TO SPECIFIC OFCOM QUESTIONS

*Q1: Are there any other major medium- to long-term spectrum management issues that this review should be considering? Are there any other significant technological or market developments that this review should be aware of when developing its thinking?*

ESOA supports OFCOM's recognition that international obligations are fundamental in effective radio spectrum management. The satellite community firmly believes that there is a strong and continuing requirement for pan-European harmonization in the spectrum managed approach applied to the satellite sector in order to maintain its very viability.

*Q3: Are there any other issues of sufficient significance to merit mention in this document?*

ESOA believes that, in order to increase transparency and a level-playing field on spectrum use in Europe, information and data on all radiocommunications should be collected and publicized at national level. Today, whereas satellite footprints are made public through the ITU's filings and also when earth stations need to be coordinated with national radiocomms in shared bands, information on the actual terrestrial operations is nowhere in any national licensing table.

*Q4: Are there important lessons to be learnt from experience in other countries that is not addressed here?*

The U.S. government also has recognized that international satellite spectrum should not be subject to auctions or trading and included a prohibition against said actions in Section 6472 of Public Law 106-180 of March 17, 2000, entitled Open-Market Reorganization for the Betterment of International Telecommunications Act (ORBIT Act).

*Q5: Do you agree with OFCOM's intent to maximise the use of trading and liberalisation?*

ESOA would call upon OFCOM to continue its careful approach to introducing new methods of spectrum management. Trading and liberalisation of usage are new concepts and can have far reaching impact on the future of existing services.

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<sup>2</sup> Section. 647. Satellite Auctions. "Notwithstanding any other provision of law, the Commission shall not have the authority to assign by competitive bidding orbital locations or spectrum used for the provision of international or global satellite communications services. The President shall oppose in the International Telecommunications Union and in other bilateral and multilateral fora any assignment by competitive bidding of orbital locations or spectrum used for the provision of such services."

As far as satellite is concerned, first, some form of secondary market already exists in the sector (e.g. transfer of rights or leasing capacity) and efficient use does not require further intervention from the regulator. Second, change of use should be looked at carefully, as pointed out in the November 2004 RSPG Opinion.<sup>3</sup>

*Q7: Do you agree with OFCOM's approach to providing spectrum for licence-exempt use?*

ESOA encourages OFCOM in its approach to set aside spectrum reserved for licence exempt use where possible and to limit intervention to those cases where significant risk for harmful interference exists.

ESOA entirely agrees with OFCOM stating that not all access to radio spectrum should be license-exempt, because the risk of harmful interference is too high and cannot be managed solely by market players.

Where OFCOM wants to rely on license exempt devices as a means to increase spectrum usage, it must require their proponents to demonstrate how power restrictions or other means that will preclude harmful interference to other services will be maintained under all distribution scenarios. Should an unlicensed device become popular with the general public, its use can expand broadly both in sheer numbers and geographically. The aggregate interference from many devices can result in unexpectedly high levels of interference, and, given the numbers and lack of information regarding their geographic locations, make it difficult or impractical to remedy or eliminate the interference.

ESOA is notably concerned about OFCOM's intention to "increase the range of license-exempt use in rural areas",<sup>4</sup> since any change in the rules that would permit, for instance, higher terrestrial power in frequency bands that are adjacent to or shared with satellite service providers could have a particularly burdensome impact on the many businesses and individuals in rural areas who rely on satellite-delivered services as their only means of service. In fact, increasing the terrestrial power in bands shared with satellite services would expand the size of 'exclusion zones' for such services and hinder satellite services, a source of 'technology-neutral competition'.

On the other hand, when feasible (in exclusive bands or in cases in which power limits, or other means that will preclude harmful interference to other services are implemented), license-exempt should be the prevailing regime and this not only for Short Range Devices (SRD). L-band, including the frequency range 1525 MHz – 1559 MHz for the downlink and 1626.5 MHz-1660.5 MHz for the uplink, is a prime example of an internationally harmonised band, even beyond the borders of Europe,

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<sup>3</sup> *"Licensees may wish to change conditions of use outside the terms of the license. The RSPG considers that any such change of conditions should be subject to ex-ante authorisation, after thorough analysis of the spectrum management implications, on a band-by-band, case-by-case basis."*

<sup>4</sup> Para. 4.4, p.26

where no risk of harmful interference at the national level appears and where services can continue to be aptly regulated by general authorisation.<sup>5</sup>

*Q10: Do you agree with OFCOM's longer term proposals for spectrum trading?*

We do not anticipate that the unique aspects of satellite services in relation to spectrum management will change in the medium term. ESOA believes that OFCOM should continue to conform to the relevant international framework which tends to allocate spectrum for use by commercial satellite applications on an exclusive and harmonized basis. If OFCOM concludes that additional spectrum trading is introduced in these bands on a longer-term basis, ESOA believes it is essential that OFCOM defines the relevant spectrum rights in order to avoid interference to existing space-to-earth satellite transmissions over the UK.

*Q12: Should OFCOM do more to resolve interference?*

ESOA expects that a national regulator such as OFCOM would guarantee the appropriate management of harmful interference, not only those which occur as a result of illegal emissions. ESOA is not convinced that interference can be managed without prior regulatory guarantees.

*Q13: To what extent should OFCOM intervene in promoting innovation?*

OFCOM has adequately stated<sup>6</sup> that the role of the spectrum manager is basically to manage spectrum such that 'no two users transmit on the same frequency at the same time and sufficiently close together that they interfere with each other'. While users and applications making use of spectrum may change and increase in number over time, it is ESOA's view that the role of the regulator should protect those services for which investments have been made and on which many users rely, while creating a framework that allows innovators to enter the market without detriment to existing services, such as satellite.

*Q14: Do you agree with OFCOM's proposed approach to harmonisation?*

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<sup>5</sup> Applying general authorisation for certain satellite bands would follow the spirit of Directive 2002/20/EC on the authorisation of electronic communications networks and services. This Directive foresees in **Whereas 7** that "*the least onerous authorisation system possible should be used to allow the provision of electronic communications networks and services in order to stimulate the development of (...) pan-European communications networks and services and to allow service providers and consumers to benefit from the economies of scale of the single market*". **Article 5** of the same Directive stipulates that "*where the risk of harmful interference is negligible*" they shall "*not make the use of radio frequencies subject to the grant of individual rights of use but shall include the conditions for usage of such radio frequencies in the general authorisation*".

<sup>6</sup> Spectrum Framework Review, Page 2, Section 1.2

ITU Regulations and CEPT Decisions leave much flexibility to national authorities; but the existence of these documents demonstrates the very need to consider harmonized approaches with care: these have not been adopted in vain, as fully demonstrated in the last 50 years. In particular, there will always be “applications for which there is a strong requirement for pan-European harmonization”,<sup>7</sup> not only for mobile applications such as GSM, but also in BSS, FSS and MSS bands; and some other areas where, indeed, a “less prescriptive approach might be taken in the future”, simply because the related services are essentially of a national scale (e.g. some wireless terrestrial applications).

*Q15: Can you foresee any problems with the proposed approach to harmonisation other than those listed above?*

As OFCOM rightly points out, “for satellite services which normally span many countries [harmonization of spectrum use] is a practical requirement.” (p.35). In fact, it is clear that harmonization is of the essence when there is a need to develop a regional cross-border market, like for pan-European technologies or business plans.

We take this opportunity to emphasize the importance of harmonized spectrum bands for international satellite systems. As you know, the satellite industry is highly capital intensive, with a single satellite typically requiring an investment of more than 120 million pounds. The planning, building and deploying of a satellite is a process that takes years of planning and once operational the satellite’s characteristics (including its frequency plans) cannot be modified. Therefore it is of the utmost importance that a satellite operator has regulatory certainty, on a multi-country basis, that it will have long-term use of specific frequencies without potential interference issues.

*Q18: Do you agree with the RIA (Regulatory Impact Assessment)?*

In the RIA provided in Annex E of the Report, ESOA acknowledges that OFCOM has actually identified some of the most critical risks derived from its proposals, amongst which three areas: international agreements, harmonization and interference management.

ESOA is taking the opportunity to stress that, although definitely in favour of a regulatory impact assessment, there are limitations to what can be derived from an assessment based on purely economic criteria. Every impact assessment needs to take into account benefits to the society at large. Indeed, many satellite services bring unique contributions to safety at sea, disaster relief and coverage of areas

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<sup>7</sup> As the RSPG stressed in its recent Opinion: “European harmonisation of spectrum use through CEPT will continue to be a key element in securing maximum economic and social benefits from use of the radio spectrum, provided that it is sufficiently flexible, technology-neutral and dynamic enough to encourage innovation, competition and the European Single Market. The RSPG considers that European harmonisation of spectrum use should continue to be pursued actively with these objectives in mind.”

where there is market failure. The unique features of satellite need to be valued adequately in any RIA.