

*Question 1: How should Ofcom manage the process of taking advice from users, regulators and government on efficient apportionment of AIP fees in the maritime and aeronautical sectors? Are any new institutional arrangements needed?*

**AEA Response**

The United Kingdom Government has developed a Code of Consultation. Ofcom should respect this Code of Consultation and adhere to its requirements. Among other things an Impact Assessment should be undertaken, which should include safety, airspace efficiency and economic aspects.

International regulation, which is essential for global aviation, must be respected.

In addition, Ofcom should confirm that any proposals will be within the scope of the UK Government's commitments to aviation as formulated in the recent 2007 Forward Look.

In the process of taking advice, Ofcom should ensure that users, regulators and the Government are fully aware of the recommendations of the Cave Audit and confirm that it is minded to respect these recommendations.

*Question 2: If you consider that our proposals for pricing ground station users for any spectrum would be likely to have a detrimental impact on safety, please let us know. In order for us to understand your assessment fully, it would be helpful if you could outline the mechanisms whereby this might happen.*

**AEA Response**

Sharing of aeronautical radio spectrum that is used for safety of life could have a negative impact on safety.

Any proposed sharing must be considered on a case by case basis.

Any costs involved in compatibility analyses and evaluation testing should not be borne by the airlines.

In particular, it must be borne in mind that aviation spectrum is used over much longer ranges than in other sectors because of the height at which aeroplanes fly.

Aeroplane VHF radios are of relatively old design and use Amplitude Modulation. They are thus more prone to interference than more modern FM or digital radios. UK aeronautical spectrum users are unable, in isolation, to influence global aviation to move to using more modern radios. Thus the spectrum must be protected from interference.

*Question 3: Do you have any evidence which indicates that AIP charged to ground stations could have a material detrimental impact on UK competitiveness?*

**AEA Response**

It is inevitable that any AIP charges would be passed, either directly or indirectly, to airspace users, particularly airlines. This levy will make aviation even more costly in the UK, thereby reducing the competitiveness of UK airlines and British Airports. This will reduce the competitiveness of the UK economy since aviation, in particular airlines, is an indispensable engine for economic growth.

*Question 4 : Taking into account the information available in this document, including that set out in Annex 5, our initial views on VHF radiocommunications licence fees and on the reference rates for bands in other uses, and any information you have about the organisations to whom we are proposing to charge fees, please provide any evidence that you think is relevant to us in considering the financial impact of the fees we intend to propose for VHF radiocommunications, or for other uses.*

**AEA Response**

Ofcom's objective is to promote efficient use of radio spectrum.

With respect to VHF communications the consultation paper may be considered to oppose this objective.

The reality in Europe is that the VHF communications radio spectrum supports over 10,000 assignments. It is an excellent example of maximising value within the international constraints imposed on aviation. Also, these assignments substantially exceed the envisaged number when the spectrum, that has not been increased, was originally allocated. Furthermore, analysis by EUROCONTROL suggests that a further 1500 assignments (Area Control and Approach frequencies, ie those required over longer range) will be required by 2027. Core areas of Europe do not have enough frequencies to assign today.

However, the consultation paper argues that because the spectrum is inefficiently used it is denied to non-aviation users. International treaty obligations of the United Kingdom would not allow access to the aeronautical spectrum by non-aviation users so, by definition, no other users can be denied. In other words, the economic opportunity cost is zero. Indeed the Cave Audit, referred to in the consultation paper, supports a zero opportunity cost.

The consultation paper also argues that if spectrum is underused then there is no opportunity cost. Indeed this could imply that under-utilisation of spectrum is financially advantageous.

The paper does not consider the fact that ground transmissions are subject to different protection levels. En-route transmissions require a large protected volume while some services have no protection. If AIP were imposed then all license holders could reasonably demand protection of their own service which would make frequency planning in Europe impossible.

Instead of introducing AIP, the UK Government should support the European Commission's Single European Sky Second Package (SES II) proposals. The European Commission's legislative proposal package (COM(2008)388, COM(2008)389/2, COM(2008)390) in article 6 of Regulation (EC) 551/2004 (network management and design) proposes to give the EU the competence for the coordination and allocation of scarce resources such as VHF frequencies. The UK government should support this proposal as the way forward to ensure a more efficient use of VHF frequencies rather than introducing AIP.

It is also worth mentioning that the reason why aeronautical users have specific spectrum requirements is mostly to do with the physics of the applications using the individual bands of the spectrum. There is thus no opportunity to change the use of spectrum, in those bands, without changing or removing the applications.

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| <i>Question 5: Do you agree that there is little to be gained, in terms of economic efficiency, from charging AIP to WT Act licences for aircraft?</i> |
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#### **AEA Response**

There is no substantial evidence that the UK economy would benefit from charging AIP to the aviation sector. In fact the reverse is true: UK airlines and airports would suffer economic disadvantage from AIP.

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| <i>Question 6: Do you consider that we should discount fees for any particular user or type of user? Specifically, do you consider that there should be a discount for charities whose object is the safety of human life in an emergency?</i> |
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#### **AEA Response**

The consultation paper seeks to distinguish between "safety of human life" and "safety of human life in an emergency". Aviation uses its radio spectrum for safety of life purposes, at all times, regardless of situation, and should not be charged AIP. It is noted that the maritime industry also relies on safety of life communications.

*Question 7: Do you agree that Ofcom should apply AIP to ground stations' use of maritime and aeronautical VHF radiocommunications channels, to help manage growing congestion in current use and to ensure that the cost of denying access to this spectrum by potential alternative applications is faced by current users?*

**AEA Response**

The economic theory related to opportunity cost assumes that the user has a choice. Imposing a charge where there is no choice is simply a form of taxation. In other words, it assumes a free market for the users; aviation is not a free market (in terms of spectrum use) but highly regulated by international treaties.

Aviation is a global industry which can only function if there is global interoperability. This is ensured through international standards agreed through the International Civil Aviation Organization (ICAO).

Manufacturing industry does not commit to the production of equipment without there being standards in place.

Hence, in the vast majority of cases, users have no choice and so opportunity costing is inappropriate.

With regards to VHF communications there is a choice between 25 kHz and 8.33 kHz systems. However, the propagation characteristics of VHF mean that transmissions from the UK can impact neighbouring States. For this reason frequency management is co-ordinated at international level. A UK provider may wish to convert to 8.33 kHz but the international ramifications may not permit it. AIP charging could not force the provider to change and so is inappropriate.

Furthermore, any frequencies freed by greater 'efficiency' in the UK would not be available to OFCOM to allocate to other users. They would be snapped up by other European countries.

*Question 8: Do you agree with our initial view that it would be appropriate to apply a pricing system similar to that already existing for Business Radio licences to maritime and aeronautical VHF communications? If not, what are your reasons for proposing that we should develop a fee structure for maritime and aeronautical VHF channels which is distinct from that already established for Business Radio?*

**AEA Response**

No, AEA considers that there should not be any fee structure for aeronautical VHF channels. The business radio sector is significantly different from the aeronautical sector and its proposed application is inappropriate. A fee structure should not be developed without first assessing the impact on all users

*Question 9: Are there any short term reasons specific to the sector(s) why it would be inappropriate to apply fees from April 2009?*

**AEA Response**

The imposition of fees where users have no choice is not in accord with the economic theory behind incentive pricing.

It is noted that the broadcasting industry's conversion from analogue to digital television has been given an extended timescale to allow users to re-equip. Digital televisions are available today unlike new aviation equipment which is constrained by international agreements. Digital radios for aviation are not available today.

*Question 10: Ofcom would welcome stakeholders' views on the factors which should be taken into account when apportioning fees between individual users of radars and racons.*

**AEA Response**

The question presumes the application of fees. A key question is the degree to which the United Kingdom requires radar coverage for security purposes. Any radar providing information to the military and/or security services should not be considered. Any fees should be levied on new users who must also be entirely responsible for the costs of demonstrating compatibility.

*Question 11: Do you agree with our initial view that a reference rate of £126k per 1 MHz of national spectrum for L band and S band radar spectrum would achieve an appropriate balance between providing incentives to ensure efficient use of spectrum while guarding against the risks of regulatory failure in setting the reference rate too high? If you consider a different rate would be more appropriate, please provide any evidence that you think we should take into account.*

**AEA Response**

No. The consultation paper is silent on whether pricing would be a function of transmitter bandwidth or receiver (front-end) bandwidth. Some radar front-ends have wide bandwidths that would need protecting which would be expensive for users. Failure to do so could result in unwanted interference reducing the sensitivity of the radar, thereby impairing performance.

*Question 12: Do you agree with our initial view that a reference rate of £25k per single MHz of national spectrum would be appropriate for deriving fees for licences to use X band radar?*

**AEA Response**

No. X-band radar is sensitive to unlicensed UWB transmissions. Hence any fees levied would not guarantee protection from interference. Such interference could reduce the performance of the radar leading to a reduction in air traffic capacity.

*Question 13: Do you agree that, generally, spectrum used by aeronautical radionavigation aids is currently uncongested? Do you believe that this may change during the next few years and, if so, approximately when?*

**AEA Response**

No. The majority of spectrum used for aeronautical radionavigation is congested. For example, DME and military use of L-band. This situation is not expected to change during the next few years.

*Question 14: Do you agree with the basis on which Ofcom has arrived at its initial view on reference rates for aeronautical radionavigation aids?*

**AEA Response**

No. Ofcom appears to support the argument that no congestion means zero opportunity cost. This suggests that underutilisation of aeronautical spectrum should be rewarded by zero opportunity cost ratings.

The zero opportunity cost is justified, as the Cave Audit recognises, because of international constraints.

**For more info please contact:**

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