

CAA RESPONSE TO THE SECOND OFCOM CONSULTATION ON APPLYING SPECTRUM PRICING TO THE AERONAUTICAL SECTOR

1. On 22 December 2009, Ofcom published the second consultation on spectrum pricing in the Aeronautical sector. This followed an earlier consultation in 2008 to which the CAA provided a comprehensive response, which emphasised the characteristics of the aeronautical spectrum environment.
2. In the intervening period, CAA and Ofcom have regularly engaged to address the issues surrounding the use of market mechanisms as a driver for efficiency. These discussions have hopefully assisted Ofcom in their understanding of how spectrum is regulated and utilised in aviation and have helped the CAA understand Ofcom's objectives. The CAA welcomes the opportunity to comment on this second round of proposals as part of these ongoing discussions. This covering letter deals with the general principles and issues with answers to the specific consultation questions detailed in the attached annex.
3. This response does not reiterate the points made in our response to the first consultation, but focuses on what we believe still to be the fundamental issues for the CAA, that have not been resolved. That said, it is important to stress that the CAA fully recognises and supports the general principles behind the use of market mechanisms as a means to deliver efficiency improvements where there are competing demands for the use of a scarce resource. As ably demonstrated through the UK's participation in European initiatives, the CAA fully supports the need to deliver spectrum efficiency, whether it be through spreading best practice, the application of spectrally efficient technology or the enhanced coordination and harmonisation in the international management of scarce resources.
4. This second consultation focuses on proposals for the application of Administered Incentive Pricing (AIP) within the aeronautical VHF band on the principle that greater efficiency will be achieved as behaviours are modified in response to charges. The perception is that this band is heavily congested and demand exceeds supply, thus making it an ideal candidate for the application of pricing.
5. Demand for VHF spectrum originates from the need to provide safe and efficient services within a heavily regulated infrastructure. The frequencies are managed and assigned by the CAA, but this is undertaken within the constraints of an international framework that imposes harmonisation requirements and within a regulated environment designed to ensure safety at all times (above all else), improve efficiency and coordinate airspace operations. Frequency use has to be consistent both within the UK and, due to the international nature of the sector, across international borders. Consequently, there is a need for a significant degree of regulatory control of frequency allocations, backed by appropriate compliance and enforcement procedures. These practical constraints mean that allocations cannot be made to individual service providers solely on the basis of price but instead, must be restricted to approved services within designated geographical and technical parameters. If these constraints are not complied with, appropriate regulatory action will be taken.
6. The VHF band is heavily congested across Europe with extensive re-use of all the available frequencies; the 760 channels meet in excess of 11000 assignments. Demand forecasts developed to support international programmes indicate that there is insufficient VHF spectrum within Europe to satisfy medium term operational requirements. Within the UK, there are no unused or unallocated frequencies, but nor

are there any unsatisfied requirements. Meeting new demand is a challenge and there is no doubt that the lack of sufficient frequencies will be a potentially limiting factor in accommodating future airspace changes. As a consequence, Europe, supported by the UK, is progressing a major programme of work to address this shortage. This work is enshrined within the Single European Sky (SES) programme and encompasses the continuing development of best practice and enhanced management of scarce resources, as well as the continued introduction of new technology (ie. 8.33 kHz channel spacing). The Aviation Industry is also developing a future communications infrastructure, which will enhance data link operations and is intended to work within existing aeronautical spectrum.

7. The effectiveness of pricing mechanisms to deliver greater efficiency depends on the ability of the user to change behaviour in response to the pricing input. In respect of the proposals contained in this consultation, the CAA is not convinced that the argument has been made to support this approach for aviation. VHF spectrum is required to meet operational and safety requirements that are coordinated and harmonised within both a national and international framework. The frequencies are implemented to support approved services in relation to the specific nature of the operational environment. As a result, an individual service provider has very little, if any, flexibility to make changes to frequency requirements without jeopardising their operation. Therefore, pricing is extremely unlikely to deliver any efficiency benefit within the aeronautical VHF spectrum. Rather, efficiency improvements are managed and sought in an international, administrative context, as the only practical way to coordinate changes in a safe and efficient manner, whilst securing the necessary consents from other member states.

8. Ofcom's proposals suggest that in response to AIP, aviation may reduce spectrum demand by considering a range of options such as making infrastructure improvements, investing in spectrally efficient equipment, speeding up the transition to new technology and changing the nature of end use by, for example, using larger aircraft. Aviation at national, regional and even global level is already embarking on a range of measures that are intended to deliver just such outcomes. Aviation is well aware of the need to make positive changes, to deliver safety, environmental and airspace efficiency benefits, as well as reducing the cost base in a challenging economic climate. Introducing AIP in the UK will not have an appreciable impact on the European and global appetite for driving efficiency improvements, nor on the economics of deploying larger aircraft (which is dominated by other costs and the constraints imposed by available aircraft capacity). Aviation is committed to making progress on these issues, through the UK's Future Airspace Strategy, the European SES programme and many global initiatives. Included in this is the need to make best use of scarce resources to meet increased demand. As this work is internationally harmonised to embrace all sectors of the Industry, it is far more likely that effective benefits can be delivered in the longer term. As spectrum is a key element of this work and its availability and efficient use underpins most future strategies, aviation is well advanced in addressing the issues originally raised by Professor Martin Cave in his 2005 report.

9. The consultation implies that aviation users are in competition with one another for frequencies and that pricing will effectively prioritise this demand on the basis that those with the greatest need will be prepared to pay for it. We consider the consultation underplays the fact that individual aviation stakeholder's use of spectrum needs to be coordinated across the UK, Europe and other international markets, rather than having to compete for its use solely at a national level. It is through the efficient coordination between users that efficiency benefits will be realised – something that requires international cooperation through a number of international

fora. Whilst strategic priorities exist, each individual case for a frequency is assessed to ensure it is a justified requirement in its own right. This occurs at both national and international level and the aim is to find the means to satisfy all requirements in the most efficient manner. The premise that users are in competition with each other for frequencies is not therefore valid in respect of the proposed charging regime. Most significantly, as aeronautical spectrum is generally not releasable to non-aviation users due to international obligations and regulation, the use of this portion of the spectrum is not being denied to others, as they would be unable to utilise it.

10. For aviation, a significant amount of activity takes place within an environment where General Aviation, military and some commercial activity can operate alongside each other ie. outside of controlled airspace. Within this environment, the greater proportion of VHF usage is on a voluntary basis based on the benefits of having two-way communication available. The potential reaction to VHF pricing by individual General Aviation users, including sport and recreational users, is that they cease voluntary use of the VHF radio. As such use is generally met from shared frequencies, release by these users will not result in any significant benefit, unless all users relinquished usage; but even if this were the case, any “freed up” frequencies would be subject to international re-allocation at point of need. The current approach also encourages General Aviation users to make use of VHF e.g. to improve awareness of other traffic when approaching an airfield, which has an associated safety benefit for all users and society. Consequently, pricing VHF could result in an unintended consequence on safety were current users to cease using voice communications¹. In this event, it may become necessary for the CAA to introduce additional regulation to ensure that safety is maintained. It is also appropriate to note that if users were able to release spectrum as a response to AIP, there will be a regulatory cost and burden for the safety case or safety assessment to be re-evaluated. This burden will fall on both the user and CAA.

11. The proposed pricing model, whilst not an exact read across of the Business Radio model, introduces similar principles for VHF. In particular, the model proposes a basis of geographical variation based on demand. Given the international constraints of spectrum availability in the south and east of the country, and that standards and requirements for aviation frequency use are not affected by geographical variation, population density or demand, this appears to be inappropriate. Our understanding is that the proposed pricing mechanism does not reflect actual volumes of geographical space. We consider this to be a material omission in that this is a key factor in frequency assignment, even though the pricing structure allows for broad variation based on the areas sterilised by use. In this context, and recognising that it would lead to a relatively complex pricing algorithm, factoring in the volume of use would allow it to be influenced by AIP, replacing the somewhat coarse proposal contained in the consultation. This would reflect actual use rather than type of user in the pricing structure, which would also provide appropriate differentiation between what is generally a smaller area required for frequencies used by General Aviation and those supporting en-route operations.²

¹ The voluntary and unregulated approach encourages use that generates a benefit to all users of that airspace and potentially affected individuals on the ground. Exposing individuals to increased costs of their VHF use without factoring in the external benefit of that use implies that VHF pricing could reduce overall efficiency and benefit rather than increasing it.

² In this context, volumes of frequency coverage are based upon the area of Designated Operational Coverage (DOC), which is the area of airspace, defined laterally, and vertically, which is necessary to protect the operational use of a frequency from interference to and from other users.

12. It is noted that in the Ofcom consultation on applying spectrum pricing to the maritime sector, published on 13 August 2009, proposals were made to involve Government in a new strategic management role, particularly in the Transport Sector. The rationale was that in many transport sector bands, effective management by Government could assist in releasing spectrum to other users and could be incentivised by the use of AIP if appropriate. Given that there is little scope for behaviour change in the use of VHF, thereby negating the principle benefit of AIP, and that spectrum management efficiencies are being pursued at an international level where DfT lead on State policy, we are unclear on the rationale for treating VHF differently. From an aviation perspective, it would appear more appropriate to treat the entire aeronautical spectrum consistently across communications, surveillance and navigation within both air and ground environments.

13. In summary, the CAA fully recognises the potential benefits in using pricing mechanisms to encourage efficient use of a scarce resource. Given the nature of VHF use within the aviation sector, it is considered very unlikely that any material benefit will be delivered by VHF pricing, despite the significant management processes and administrative mechanisms that would be necessary to implement the proposals. In addition, as ably demonstrated through activities within the UK, Europe, and to an extent at the global level, significant and urgent work is already underway through a range of initiatives to ensure effective spectrum management is practised at every level in the aviation sector. This ranges from new equipment and technologies being introduced under European legislation, adoption of best practice at national and international level and the introduction of new management functions supported by existing and proposed European legislation to manage scarce resources. Pricing of VHF spectrum in the UK is unlikely to have any appreciable effect on the outcomes of these administrative processes. There is a concern that if the proposals result in unintended consequences affecting safety in those areas where only an appropriately light level of regulation based on current risk has been necessary, subsequent action by the CAA will increase the regulatory burden and not be consistent with the Government's policy for Better Regulation.

RESPONSES TO SPECIFIC CONSULTATION QUESTIONS

Q1. Do you consider that our proposed fee rates for licenses in the aeronautical VHF frequencies are appropriate?

A. The CAA view is that the application of AIP to aeronautical VHF spectrum will not deliver the benefits envisaged due to the fact that VHF requirements are based on safety and operational requirements that are generally directly linked to the Approvals process, and that international obligations and processes are a key constraint. This makes it highly unlikely that aviation stakeholders would be able to make the behavioural changes anticipated by AIP and therefore we do not support the proposed fee rates.

Q2. 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?

A. As previously discussed with Ofcom, it would be appropriate to review and develop a consistent set of definitions of uses reflecting ICAO, ITU and EASA requirements and recognised services. The CAA would be content to work with Ofcom to achieve this.

Q3. Do you agree with our proposal not to charge any fees for Fire assignments?

A. Yes

Q4 Do you agree with our proposal to set a £75 fee for assignments in any of the sporting frequencies?

A. Whilst this seems a reasonable charge, as discussed in the covering response at para 11, the pricing algorithm could achieve this same distinction and provide a means by which pricing could influence sterilisation and use if it took into account volumes as used in frequency planning. This would allow for actual use to be reflected in the AIP pricing and would differentiate between the generally more localised use of frequencies by General Aviation and the larger coverage required for en-route operations.

Q5. Do you agree with our proposal to set an annual fee of £9900 and £19800 per channel respectively for ACARS or VDL assignments, with no relation to the number of transmitters used in such channels?

A. Given that aviation is seeking to use data links to a far greater extent as the means of delivering efficient communication and managing the voice congestion, it is important that the proposed costs do not create the perception that Ofcom does not support these benefits.

Q6. 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 or 2 for the highest proposed fee in this sector?

A. The phasing proposals are a pragmatic way forward for mitigating impacts, particularly for some users. However, those directly affected are best placed to provide the detail comment on the impact.

Q7. 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?

A. Individual stakeholders are best placed to provide comment as they will be able to assess how the proposals will directly impact on their business.

Q8. Do you consider our assessment of the impacts of our proposals have 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.

A. The CAA has provided consistent and detailed input to the AIP proposals and discussions since the publication of the Cave Report. However, given the view that AIP will not deliver the perceived benefits for aeronautical VHF spectrum, the proposals do not provide a realistic measure of the impact of the necessary administrative burden, particularly in view of the extensive international work which will potentially deliver greater benefits.