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**Applying Spectrum Pricing to the Maritime and Aeronautical Sectors Response from the Light Aircraft Association**

Dear Mr Richardson,

Thank you for consulting the Light Aircraft Association (LAA) on your initial proposals to applying spectrum pricing to the maritime and aeronautical sectors. We respond on behalf of our 8000 members who own some 2000 recreational and homebuilt aircraft, the airworthiness and safety of which we manage on behalf of the CAA. LAA members fly mainly in day VFR conditions, their aircraft ranging from historic examples to modern high performance aircraft with sophisticated navigation systems. Pilot experience and qualification covers the full spectrum of professional and amateur. Because of our role, we have a high regard for air safety and we take a broad view on safety matters generally. It is our mission to promote affordable flying for the recreational segment of General Aviation. Our response here is restricted to aeronautical matters and we focus on your proposals for VHF radio communications.

Our response has 3 main themes, the applicability of AIP to UK aviation, the effect of the proposals on the sector and UK PLC generally and public safety. We note that it is your purpose to create clear incentives for decision makers to use spectrum efficiently and in particular to enable users to determine their need for spectrum in light of the cost which this imposes on society.

In our answers to your specific questions we challenge your assertion that AIP provides any incentive towards spectrum efficiency, basing our arguments on the audit by Professor Cave. Rather than duplicate, we refer you to our answer to question 7 below on the matter of incentive and efficiency. We assert that the use of the aeronautical spectrum imposes no cost on society. It has no legal or safe alternative use and therefore has no economic cost. Again our answer to question 7 sets this out. On the matter of the effect of the proposals on the sector and UK PLC, please see our answers to questions 3 and 9. On safety, please see our answer to question 2. On the safety case, you propose that AIP will

allow users to judge their need for spectrum in the light of its cost so we would reasonably expect that these market forces will cause some users to give up VHF Com. However your consultants Indepen note that aeronautical VHF Com channels are involved with safety of life and they propose that the correct policy response where a user attempts to give up VHF Com is to introduce legislation to require it to be continued. This circular logic defeats your original proposition as such legislation would negate the market forces you propose, making this a straightforward revenue raising process rather than one of efficiency of spectrum use. We understand that you could not go forward with AIP on such a basis.

We offer the following responses to your specific questions:

***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?***

We recognise the Cabinet Office guidelines on consultation as being best practice in this area. Such use would ensure you were clear about your policy objective and set out options which could be compared with doing nothing. Before that it will be important that you understand the effect of increased costs within the aviation sector and recognise that where you may have safety responsibilities you fully understand and accept the consequences. It would be instructive to compare a do nothing option with your pricing proposal as we believe that the outcomes will be the same in terms of spectrum efficiency.

***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.***

Unlicensed aerodromes are able to equip with ground VHF com radio stations or not depending on their situation and business decision. The CAA is currently consulting on releasing aerodromes which are licensed for the purposes of flight training only, from the requirement to be licensed which would bring them into line with other EU nations, ready for the transfer of regulation to EASA. In this situation all aerodromes, other than those licensed for public transport of passengers, have the option to offer a VHF com service or not. There is no obligation in regulation to require this.

Of approximately 310 aerodromes in the UK, only about 35 could properly be called airports, places where passengers use tickets to board scheduled and charter aircraft. There are some 145 licensed aerodromes in total and about 155 unlicensed aerodromes plus a large number (several hundred – there are no particular statistics) of landing sites, farm strips and gliding sites. Of the 155 unlicensed aerodromes, 68 have

no VHF com. Depending on the business case, any number of unlicensed aerodromes may decide to forego VHF com because of the cost you may impose. Equally, any number of licensed aerodromes may decide to become unlicensed and also forego VHF com.

It seems likely that a 25kHz channel for a small aerodrome will double the total licensing costs and several aerodrome owners have told us that, especially in the current economic circumstances, that would be unaffordable. They would have to forego VHF com or become insolvent. The landscape of GA aerodromes in the UK is fragile. There is barely enough parking and hangarage to accommodate all the small aircraft registered in the UK so the closure of even a small number of aerodromes would be a crisis. Whilst aerodromes which are very quiet can manage without radio, those that are moderately busy need radio to ensure deconfliction of aircraft. If the pricing is at such a level that aerodromes have to forego VHF com or close, the risk to aircraft will increase

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

Extending the answer to question 2, if charging is sufficient to increase risk, operations in UK airspace will become less safe than in other EU airspace. Parking and hangarage for aircraft in the UK is under significant pressure so if charging is sufficient to close aerodromes, aircraft will have to be sold abroad. The UK light aircraft market would collapse if there was no place to park newly purchased aircraft severely disadvantaging UK businesses. Manufacturers and supply chain businesses would close or move abroad.

Flight operations in the UK which are elective, such as recreational and commercial training, are already under pressure to relocate abroad because the cost of regulation here far exceeds that in other EU countries and elsewhere in the world. The majority of this industry has already moved abroad, just last month the Oxford Aviation Academy announced a second overseas training site. With the introduction of EASA regulation over the next year, there will be free movement of licensing within the EU removing the final requirement for part of this activity to be carried out in the UK. The proposed Ofcom charging may be the final nail; the UK may become wholly uncompetitive in the flight training marketplace and industry will have totally decamped abroad.

***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.***

We understand that the reference fee proposed for VHF Com channels is based on a "whole UK FIR" coverage model and that where a channel is reused within the UK, some scale factor will be applied. It will be necessary to develop an algorithm to take account of the various arrangements that exist and we believe that the CAA is best equipped to deal with that.

See our answers to the previous questions for other aspects of these issues.

***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?***

Once EASA regulation is in place many aircraft operators will consider re-registering their aircraft in other EU countries as the cost of regulation will be lower. In particular, UK airlines will no longer have a requirement to register their fleet in the UK. Similarly, private aircraft owners will be able to move their registration offshore. The addition of AIP charging to UK registered aircraft will add to this pressure to move the UK aircraft fleet into the EU.

You will be aware that many aircraft operating in UK airspace are registered elsewhere, some registered in the USA and many registered elsewhere in the EU. Many expensive corporate aircraft are registered in the Cayman Islands and in other states offering similar services. As there is free circulation of aircraft in and through the UK it seems inappropriate to charge an additional fee to aircraft that happen to be registered in the UK.

Moreover we believe that aeronautical WT Act licences should be priced in the same way as maritime licences as, contrary to opinion, the renewal process does not involve any airworthiness input; it is just an administrative process incurring no other cost.

***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?***

We consider that where communications are used to ensure safety of life, any opportunity cost should be set at zero. Where charities are involved, it is bad government to force volunteers and donors to contribute to fees which pass to treasury and particularly which sustain the operations of OFCOM. It is immoral for OFCOM to extract its own operating costs (and profits as declared in its annual report) from charitable donations made in good faith by members of the public. If it does this OFCOM stands the risk of significant adverse publicity especially in time of economic

hardship when charities will find funding difficult.

**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?**

We restrict our comments to the aeronautical sector only. Were Ofcom proposing to do as question 7 suggests, we would be inclined to agree. However, as you know that is not the proposal in the consultation. The aeronautical VHF bands are set and managed by international agreements and all equipments must conform to the international standards. In the UK this is carried forward into law through the Air Navigation Order. It is not possible for government, regulator or users to deviate from these rules and standards because of the safety critical nature of the sector. You raise some specific sub-questions:

Will AIP help manage congestion? This raises 2 points:

First, there is not "growing congestion" in the aeronautical VHF band. Congestion occurs in a system when the traffic level is such that users suffer errors, delays or exclusions. As you know the band is managed internationally to ensure safe and accurate communications with aircraft and if this was not achieved in practice there would be a major public safety issue. So it is not correct to say the band suffers growing congestion.

Secondly, AIP will have no affect whatsoever in the short, medium or long term. Frequencies are managed on an international basis and although there may not be sufficient channels worldwide, there is no congestion as such because of the mechanism for allocation of which you are aware. Users have no means to influence ICAO and in any case the UK is insignificant in this area.

Will AIP ensure users face the cost of excluding alternative users? Alternative uses of the aeronautical band are not permitted by international agreement so there is no cost to face. As an alternative user may not use any channels for other purposes, they would have no value. In his report Professor Cave recognised this when he wrote in Chapter 6 of his report that:

*If there is judged to be no prospect of alternative use due to international restrictions and since the UK is unable to act unilaterally in spectrum that is internationally harmonised for on-board use, then the opportunity cost of the spectrum for alternative use should be judged to be zero.*

Now, we understand that you do not agree with this analysis by

Professor Cave but we would point out that the recommendations have been agreed by Government and this statement is one of the pillars on which his recommendations were made. In your consultations you consider the definition of opportunity cost in Paragraph 3.19 where you offer 2 options:

1. *That which takes account of the effect of constraints introduced by regulatory policy (e.g. the fact that the spectrum is allocated on an exclusive basis) and thus considers only those alternative uses that can be accommodated within these constraints,*  
or
2. *That which does not take account of these constraints, but considers all alternative uses that are technically feasible, ignoring constraints imposed by regulatory policy or international agreement.*

You go on in paragraph 3.21 to say that:

*We choose therefore to consider the second of the definitions of opportunity cost....*

We consider that choosing to ignore regulatory policy and international agreement is contrary to Professor Cave's findings and seeks to bypass the logic of applying opportunity costs in this sector to enable you to make a charge where none is due. We believe that this would be outside your legal authority and it therefore follows that the action of choosing to apply this definition is also outside that authority.

At your aviation workshop you addressed this by saying that:

*Ofcom considered any spectrum use that excluded another use had an opportunity cost and that estimating that cost was useful in informing decisions*

We do not disagree with that and indeed, neither does Professor Cave. He does not exclude an opportunity cost but concludes that in the circumstances it should be set at zero, reflecting the fact that this spectrum cannot be used for other purposes or by other users so it has no value for those purposes or users.

You went on:

*The international regulatory context was relevant in considering the impact of pricing, including whether the introduction of pricing could be expected to encourage more efficient decision making and whether users would be able to respond efficiently to fees being imposed.*

We tend to agree with parts of this. We have to say that AIP is not "intended to encourage more efficient decision making", and we are sure

you would agree with that. We consider the international context is relevant to considering “if users would be able to respond efficiently to fees being imposed”. As Professor Cave noted, the UK cannot act unilaterally so the imposition of fees cannot tend to increase spectrum efficiency so releasing spectrum to other use or users. Thus your statement supports his conclusion that the opportunity cost should be set at zero in this case.

You supported your decision to disregard the international and regulatory context by saying that:

*This judgment did not depend simply on whether spectrum use would be reduced in the short term: a user (or its regulator) could potentially take a decision, in light of full cost information including the opportunity cost of spectrum, to continue with the current use, with the current technology and under the current agreements.*

This suggests that if a user or regulator found the cost of their spectrum to be too great they could discontinue its use and this would somehow increase spectrum availability (or efficiency). However, you know that in the aeronautical spectrum, the frequency would be reallocated elsewhere by international agreement and be used by another nation at no cost to them. By this means UK aviation would be denied a resource which would make our overall activity less efficient in operational, safety and economic terms. Thus AIP as propounded by OFCOM would act to reduce the efficiency of spectrum for the UK.

You conclude:

*Under generally accepted economic theory, knowledge about the opportunity cost of any input is likely to ensure that cost is taken into account on the same basis as for other inputs, which may be easier to adjust.*

Again we do not disagree with this and given knowledge of the aeronautical sector one can clearly see (and Professor Cave did see) that the international regulatory context makes the opportunity cost zero. Knowledge about this zero opportunity cost will indeed inform national policy, allowing negotiators to obtain an appropriate share of this international resource having regard to the other real inputs which you allude to. If their position was skewed by an artificially created cost input that did not apply to any other delegate on the international stage, UK PLC would suffer detriment in this important resource area.

***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?***

We refer you to our discussion in question 7 which clearly shows the distinction between the nature of aeronautical communications and business radio and the particular constraints that apply. Unlike aviation, business radio can trade and change use and technology. Even MOD is in a position to directly influence NATO on VHF com operational requirements. Civil aviation is clearly quite different and you should not try to bend economic theory to force the sector to pay a charge which is ruled out by the government's expert report. You should and indeed must take this forward on the basis of Professor Cave's audit as directed by Government.

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

The present economic situation demands that all policy decisions taken by Government and regulators take full account of the likely consequences. Even spending the management time and resources on these consultations is damaging the economy of the UK at a time when businesses should be fully focussed on survival. Your preferred outcome would add substantial costs to the UK aviation industry for no tangible benefit for Industry or the Nation. Because aviation is an international business that moves easily across borders, the competitiveness of UK PLC will be damaged and foreign businesses will reap the benefits of lower relative costs. And you propose to do this in the face what could easily be the worst recession since 1929!

You have told us that if the economic conditions are not right now you would nonetheless proceed and set charges to be deferred to a particular date. We consider this to be folly because we cannot afford the diversion from core business now and none of us know what the situation will be in a few years time. Faced with increased costs to come, Industry will reposition itself to minimise those costs to enable it to recover in the coming years; those that can will go elsewhere. You have said that you want to tidy this business away so that Ofcom is seen to be operating in a professional manner. Frankly we and the Country expect its regulators to take a broader view than that in these difficult times.

We believe that this consultation should be suspended until economic growth has been re-established and you should report to Government that now is not the time to apply these costs.

***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.***

We have no opinion on question 10



**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.**

We have no opinion on question 11

**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?**

We have no opinion on question 12

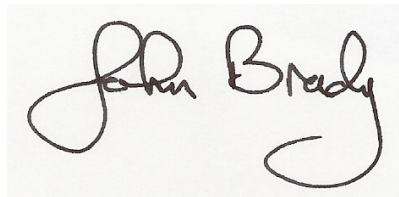
**Question 13: Do you agree that, generally, spectrum used by aeronautical radionavigation aids is currently uncongested? Do you believe that this may change during the next few years and, if so, approximately when?**

We have no opinion on question 13

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

We have no opinion on question 14

Yours Sincerely



John Brady

Vice-Chairman