

CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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30 October 2008

Mr Michael Richardson  
Ofcom  
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Dear Mr Richardson,

**CONSULTATION - APPLYING SPECTRUM PRICING TO THE MARITIME AND  
AERONAUTICAL SECTORS**

The **United Kingdom Major Ports Group (UKMPG)** and the **British Ports Association (BPA)** together represent the views of the vast majority of ports in the UK and we are grateful for the opportunity to comment on the consultation document issued on 30 July 2008 entitled “Applying Spectrum Pricing to the Maritime and Aeronautical Sectors”.

The UK ports industry plays an important role in the country’s economy. 95% of the UK’s international trade – imports and exports – is carried through UK ports. Our ports also handle 25million international passenger journeys each year. Ports are investing large sums – at no cost to the Exchequer – to expand facilities to cope with increasing demand particularly in the container and ro/ro sectors. Investment of this nature is crucial if the UK economy is to remain competitive internationally. If all the currently approved schemes go ahead container capacity at UK ports will more than double over the next decade.

Whilst comments on the specific questions posed within the consultation document are annexed, there are significant concerns and strategic issues regarding matters reflected in this consultation document that we wish to bring to your attention:

- In the workshop sponsored by Ofcom and held on 26 September 2008, it was made clear that Ofcom did not support the waiving of AIP in the maritime sector as described in the Cave Report<sup>1</sup> and subsequently accepted in the Government Response<sup>2</sup> document. The case set out in Chapter 7 of the Cave report with regard to the maritime spectrum is quite unambiguous and clearly articulates that there is no merit in introducing AIP for licence classes where there are international agreements and the UK has no scope to act unilaterally. We find the explanation in the consultation document for not accepting this conclusion of the Cave Report totally unconvincing and do not consider that adequate justification has been provided for this reversal of policy.

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<sup>1</sup> Independent Audit of Spectrum Holdings by Professor Martin Cave for HM Treasury – Dec 05

<sup>2</sup> Independent Audit of Spectrum Holdings Government response and Action plan – March 06

CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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- Ofcom has made it very clear that the aim of the AIP initiative is for increased efficiency in the use of the radio spectrum and that, should an incentive not exist, then AIP should not apply. We have consistently identified that, whilst ports support the drive for more efficient use of the maritime spectrum on safety grounds alone, they have to follow international policy. Should ports be influenced to limit their use of the spectrum, there would be significant safety implications. However, no greater efficiency in the use of the available spectrum will result until mobile units are also encouraged to change their behaviour. This would require international negotiation which is the responsibility of regulators and government. The imposition of AIP on ports would, therefore, not act in any way as an incentive for more efficient use of the maritime spectrum and can only be perceived as a means of income generation and a tax on ports and shipping. Indeed, if AIP is not to be applied to regulators and government, then there is a clear possibility of charges on ports having the reverse effect to that intended as any improvements in efficiency could result in a short-term reduction of income generation.
- We understand that other countries have considered similar initiatives which include examples where port communications and VTS have been exempted as proposed by Cave. We would urge Ofcom to benchmark their proposals against those taking such an approach so that Ofcom can better understand the implications of their alternative strategy.
- Should Ofcom be intent to drive through the application of AIP to ports despite our representations to the contrary, then Ofcom is invited to note our serious reservations with regard to the application of the adapted Business Radio model to the maritime VHF spectrum and our submission that the implementation of such a charging regime should be deferred until these matters have been satisfactorily resolved. Our concerns are explained in detail in the responses at annex where we identify that, in adapting the original model with alternative metrics, the whole concept of applying this model to maritime VHF has become fatally flawed. Ofcom has recognised in the consultation document that radar is too complex for this model to be applied and proposes further studies to identify appropriate costing mechanisms and a concomitant delay until at least 2010. We believe that the same holds true for maritime VHF and submit that the complexities of VHF are more closely aligned to radar than business radio. We do not believe that the impact of the proposed reference rates has been properly considered. Whilst we accept that Ofcom acknowledged at the September workshop the need to review these rates, we are surprised that Ofcom waited until after the promulgation of the consultation document, before deciding to commission a study into the impact of such a fundamental aspect of their proposals. We do not understand the drive for such early implementation of a charging regime on maritime VHF when such uncertainties in the methodology clearly exist.

CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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- The publication of an "AIP October Update", just 8 days before responses are due, only serves to heighten these uncertainties. This appears to be no more than a thinly veiled attempt to stifle public opinion following justified media interest in the potential impact on a well known charity. This update introduces yet more variables without proper explanation, all of which impact solely on the charging regime in the adapted Business Radio model with absolutely no incentive for improved spectrum efficiency. As presented, this proposal would appear to benefit larger Government organisations and to penalise smaller business units such as individual port authorities. The intended application of the proposal requires clearer explanation and further study. Ofcom should now accept that the adapted Business Radio model is not fit for purpose and that the whole approach to the application of AIP to the Maritime VHF should be reconsidered. If AIP is deemed necessary, then maritime VHF should be reassessed alongside the planned further studies for radar.

We remain committed to the drive for greater efficiency of the maritime spectrum but have concerns about the mechanisms currently being proposed to achieve this. Indeed, we proposed an alternative strategy in our response to the Indepen-Aegis Report in 2006, although we were disappointed to discover that these proposals had not been considered further. We recognise that there is much further work to be done in developing this concept and look forward to being invited to participate in further studies.

Yours sincerely



David Whitehead  
Director  
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Richard Bird  
Executive Director

***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?***

The consultation introduces this question with the statement that “Before introducing AIP to any sector or licence class, Ofcom needs to consider the specific circumstances of existing and potential alternative spectrum use to ensure that AIP has the desired impact in increasing efficiency.” UKMPG/BPA would support this statement but notes that the subsequent question indicates a refusal to accept the case for maritime radar and communications frequencies as outlined in chapter 7 of the Cave report which concludes: “Where there are international requirements which mean that the UK has no scope to act unilaterally, the opportunity cost of use is zero and there is no merit in introducing AIP for these licence classes. In these cases, spectrum efficiency measures should instead be pursued through international negotiations to update frequency allocations or adopt new standards or through the prescription of carriage requirements for more efficient technology (but again these would need to be implemented for equipment satisfying internationally recognised standards).” Any arrangement put in place to assess the apportionment of AIP must be able to demonstrate clearly and fairly that such a test has been conducted and to identify how the resulting spectrum efficiency will be generated to establish whether or not AIP is a suitable mechanism to achieve the aim. The UKMPG/BPA would welcome further opportunity work with the regulators, Ofcom and government in addressing these specific issues, which would then promote the long term benefits for UK.

***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.***

As part of the consultation process, UKMPG/BPA participated in a trial review to assess the implications for one of its member ports. The outcome indicated quite clearly that the proposed adapted business radio model for applying AIP to the VHF spectrum was flawed in many aspects. The impact on safety includes:

- Encouraging a reduction in the number of stations required to cover a particular Vessel traffic service (VTS) Sector on a given channel with a reduction in coverage with potential safety implications.
- Encouraging congestion by the amalgamation of VTS sectors to reduce the number of channels used with resulting increase in channel loading and safety implications, and for which the user could potentially pay higher fees given the current model proposed.
- Encouraging the removal of all racons. Racons are only used in the port environment to enhance safety.

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CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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

Any increase in charges will, by necessity, have to be passed on to vessels trading at that port. Dependent on the scale of the charge, this has clear potential to erode any competitive advantage of UK ports over their continental neighbours and we have previously challenged the Indepen Report conclusions in this regard. Significant investment in port infrastructure has been actively encouraged by government to draw trade from the near continent rather than transshipping goods and transporting to the UK by feeder vessels. Such a policy recognises the enhancement of the UK's economic base and also the obvious environmental benefits. In workshops and meetings, Ofcom has repeatedly indicated an expectation that costs would not be passed on and that ports would simply absorb such costs through greater efficiencies which is inappropriate and potentially unachievable, particularly in Trust Ports, without significant redundancies and a resulting impact in safety. Such an assumption seems to be strangely at odds with the active measures being taken by government to ameliorate the effects of the current financial crisis.

***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.***

Q2 of the Spectrum Framework Review for the Public Sector consultation document issued on 20 Jun 08 posed the question on the suitability of a 50 km square trading unit in the 406.1-430 MHz band. UKMPG/BPA responded by expressing doubt about the transference of the same approach to other bands. We note that the 50km grid Business Radio model has, indeed, been used in the proposal for VHF with little explanation or justification. The costing exercise conducted with a UKMPG/BPA member port indicated a number of important shortcomings in the application of this model which include:

- One of the key metrics, population density, of the model has been replaced by another metric, congestion. The reason for this change is not properly justified and it is our view that this negates the model.
- The details of the assessment process have not been made available but we believe that the assessment process may not take into account consequential use whereby other users are only there because of its use by the primary user (the port and the vessel).
- As identified in a previous assessment based on the Port of London some 18 months the sterilisation coverage diagram resulting from a single VHF channel bears no relation to the proposed 50 km grid on which the charge base is proposed, and no resulting efficiency is gained other than monetary income.

CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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- The intention to charge per transmitter irrespective of whether multiple transmitters may be used on a single channel is a clear indication of the intention to maximise income generation rather than improve spectrum efficiency. (It is unclear whether the volume discount announced in the October update applies to the port scenario – see final bullet in this section).
- The intention to charge double for the use of a duplex channel takes no account of the fact that simplex channels are the preferred channels for port management and will result in yet further pressure on simplex channel availability.
- The intention to charge for the two frequencies allocated to AIS take no account of the fact that these channels have already adopted the latest technology of Self Organising Time Division Multiple Access (SOTDMA) which enables simultaneous use of these two frequencies by very large numbers of participating stations (estimated to be of the order of some 2500 messages) and an automated feature to ensure that priority is given to reports based on distance from a given receiving station. There is absolutely no justification for charging for these two channels where further incentivisation for more efficient spectrum use is quite inappropriate.
- The charging differentials are unrealistic. The current proposals run counter to government policy to maintain a level playing field between ports. In some cases the costs are dramatically increased whilst in others the total cost is so low as to encourage “channel squatting”. We do not believe that the impact of the proposed reference rates has been properly considered. Whilst we accept that Ofcom acknowledged at the September workshop the need to review these rates, we are surprised that Ofcom waited until after the promulgation of the consultation document, before deciding to commission a study into the impact of such a fundamental aspect of their proposals.
- The Ofcom “October Update – 20/10/08” to the consultation document introduces further metrics for “organisations that have a large number of transmitters” and “volume discounts”. There is no indication of how this is to be assessed and applied and no indication of the charging basis that arrives at an assumption of an annual fee for the RNLI of £20k. The update also implies that this new metric would apply to all “organisations” and that, as a result, no specific reduction would apply on the basis of charitable status. The lack of detail in this proposal raises more questions than answers and requires further clarification. As presented, this proposal would appear to benefit larger Government organisations and to penalise smaller business units such as individual port authorities. The basis for the proposed change appears to be solely one of charging with no incentive for improvement in spectrum efficiency, which is Ofcom’s a declared test for the applicability of AIP.

CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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Any assessment of the impact of the reference rates for radar bands is clearly impossible until the full model has been developed. We note that the consultation acknowledges the complexity of the radar bands and proposes to defer the introduction of any charges until the model has been developed and not before 2010. We also note Ofcom's declared intent at both in the September Ofcom sponsored workshop and the August MRSUG meeting that AIP would not be introduced until the model was deemed to be correct. We remain of the opinion that the whole concept of applying the Business radio model is fundamentally flawed, that the impact and complexities of VHF in the marine band is little different from radar applications, and that VHF charges should be deferred and both radar and VHF assessed in a more measured manner. **We consider that the adapted Business Radio model is not fit for purpose and we see no justification for VHF to be pushed through in haste based on such a doubtful methodology.**

***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?***

We assume that the question is directed at the cost of implementation compared with the likely revenues. Whilst we see no reason in principle why aeronautical mobile units should be treated any differently from maritime mobile units and be exempted from charges, the question casts doubt on the declared aim of this exercise being one to improve the more efficient use of the spectrum rather than maximising income generation.

***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 believe that all organisations involved in safety and operating on frequencies dictated by international agreements with no direct means of being influenced by charges to change their behaviour should not be charged opportunity costs. This of course includes charities whose role is to save life in the event of an emergency and those such as port VTS organisations whose role is to prevent such emergencies occurring in the first place. We would not wish to obstruct Ofcom's attempt to make provision for a reduction in fees for the RNLI as promulgated in the "October Update – 20/10/08", however, as identified in our response to Q 4, we do not consider that the methodology proposed has any logic and that no improvement in spectrum efficiency would result. The proposal appears to be no more than a quick-fix response to public and media pressure.

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CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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***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?***

**No.** The Cave Report Chapter 7 section 7.2 as detailed in 1 above, identified that the UK cannot act unilaterally on internationally mandated channels. CSR I channels are identified for specific purposes internationally. At the Ofcom workshop held in Sep 08, Ofcom indicated their expectation that AIP would encourage ports to consider the value of the use of VHF spectrum and might reduce their use. We made it clear that this assumption was fundamentally flawed and is potentially a serious compromise of safety. Vessels circumnavigating the UK will still effectively sterilise the entire UK and alternative use will only be possible through renegotiation of the spectrum allocation on an international basis which is a role of the regulators and not the ports, which can only follow international policy. We acknowledge the desirability of improvements in spectrum allocations in both the VHF and radar frequencies on safety grounds alone and have indicated in previous responses an alternative strategy to AIP as to how this might be achieved but it is disappointing to note that Ofcom has indicated no recollection of the existence of such proposals.

Considerable improvements could be achieved within the current channel allocations in the VHF band through better management. The perceived congestion has been a product of the current regulators inability to take over the management of the spectrum and co-ordinate sufficiently in the international domain. It is considered that more work is required to identify where the congestion lies and by what criteria the congestion is measured. UKMPG/BPA believes that an analysis of channel loading is also required to demonstrate the congestion and that further work is required to identify the likely impact of vessel traffic in setting out the case for potential alternative use.

***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?***

**No.** In our response to Question 4 we have clearly identified why **we consider that the adapted Business Radio model is not fit for purpose and we see no justification for VHF to be pushed through in haste based on such a doubtful methodology.** The business radio model has adopted a different set of metrics to apply pricing, one of which looks to the population that the service can potentially reach (target market). Safety systems have little, if no marketable value. Ofcom in their adapted criteria, are encouraging the use of more widespread lower power systems, however it is our view that this could cost more than the current deployments with a potentially reduced operational capability thus undermining the safety case.



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CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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The business radio model is based on a 50km square Spectrum User Rights grid, which Ofcom acknowledged to be a “blunt tool” when applying this model in the trial case to VHF maritime, and indicated that this grid would be unlikely to work in the application of AIP to radar or navigational aids and that further studies would be required.

UKMPG/BPA consider that, should AIP still be considered applicable in the maritime sector, which we contest, then charges should not be introduced in the maritime VHF band until a more appropriate charging mechanism has been identified. The application of AIP to maritime VHF should be deferred and taken alongside the intended further review of radar and navigational aids.

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

It is our view that considerable further work is required to identify a charging model that can be regarded as being in any way fit for purpose. Until this is completed, it would be wholly inappropriate to apply fees. UKMPG/BPA would welcome the opportunity to work with Ofcom and regulators and government, to identify a long term strategy to realise the full potential of the maritime spectrum. This will require international negotiation by regulators and Ofcom to influence IMO recommendations, ITU standards and international obligations. The precedent has been set with Broadcasting where AIP has been deferred until a suitable rollout plan has been identified.

In addition, a clear consequence of such a hasty introduction is the inability to make in-year budgetary provision.

**We consider that the adapted Business Radio model is not fit for purpose and we see no justification for VHF to be pushed through in haste based on such a doubtful methodology.**

***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***

UKMPG/BPA has already stated that such charges should not apply and that charging ports will not act as an incentive to greater spectrum efficiency as the ports can only follow international policy as negotiated by regulators and Ofcom. Should Ofcom continue in its determination to impose charges on ports in this part of the spectrum, then it should be noted that the consultation document has acknowledged the complexity of applying AIP to radar and navigational aids. The document proposes that further studies are undertaken before any firm proposals are made. UKMPG/BPA will welcome the opportunity to participate in such studies which, hopefully, will also embrace further work on maritime VHF. A long term licence needs to be secured, to enable long term investment in equipment and technology to improve the long term aim of efficiency. Any form of licensing should also recognise the long lifetimes of radars and racons, which would then allow organisations to better invest in efficiency schemes for the long term.

CARTHUSIAN COURT, 12 CARTHUSIAN STREET, LONDON, EC1M 6EZ

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***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.***

The recent L band auctions did indeed raise significant revenue; however this was for a 15 year term, which, based on the sum paid for 40MHz of spectrum would equate to a £13,890 Per MHz per annum Value. There is no indication of the term of any licence costs. However UKMPG/BPA are conscious of the work on band re-planning and welcome further consultation on how this may be used as a cost sharing mechanism between common sharers, rather than per unit pricing.

By keeping the reference rate artificially high, Ofcom is encouraging those who cannot afford to change, to relinquish their safety mechanisms, unless they wish to opt for the long pulse lengths, which will reduce bandwidth whilst increasing susceptibility to interference, reduction of discrimination, lessening safety margins and conversely, generally sterilising over a greater area. The result will be income generation with no identifiable improvement in spectrum efficiency. Vessels will still be occupying the same bands until international direction is achieved. The result will, therefore, not achieve Ofcom's declared aim. As identified in the response to the previous question, Ofcom have noted the need for more work in this area and UKMPG/BPA will welcome the opportunity to participate.

***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?***

No. The proposed alternate use for fixed links in the band, as identified in Indepen report, currently warrant a licence fee of £88 p.a for a go-return effective bandwidth of 2 MHz. i.e. £44 per MHz taking in the band factor of 1 at 1.4Ghz (worst case), which reduces the higher up the frequency band the assignments are made. Although this is a close approximation, as there are other factors, there is a lack of consistency in approach.

Another recent auction and award of spectrum in the 10 GHz band (only 1 GHz away, hence commensurate bandwidths), Digiweb paid £39,000 for a 15 year term National licence, for 2x20MHz of spectrum (40MHz), which roughly equates to £975 per MHz or £65 p.a.

By keeping the reference rate artificially high, Ofcom is encouraging those who cannot afford to change, to relinquish their safety mechanisms, unless they wish to opt for the long pulse lengths, which will reduce bandwidth whilst increasing susceptibility to interference, reduction of discrimination, lessening safety margins and conversely, generally interfering over a greater area. The result will be income generation with no identifiable improvement in spectrum efficiency. Vessels will still be occupying the same bands until international direction is achieved. This will be further complicated by leisure users, who now qualify from the lifetime zero rated licence. The result will, therefore, not achieve Ofcom's declared aim. As identified in the response to the previous question, Ofcom have noted the need for more work in this area and UKMPG/BPA will welcome the opportunity to participate.

***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?***

UKMPG/BPA is not in a position to comment on this question.

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

UKMPG/BPA is not in a position to comment on this question.