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Dear Jim,

UK DEFENCE SPECTRUM MANAGEMENT: AN IMPLEMENTATION PLAN FOR REFORM CONSULTATION

This letter is the Department for Transport's response to the consultation paper of 30 May 2008. The Department's Maritime and Coastguard Agency has submitted a separate response in relation to its responsibilities for COSPAS-SARSAT. We strongly support their response, and also that of the Civil Aviation Authority.

We welcome the opportunity to comment. MOD's proposals are a very important part of implementing the Government's commitments on the liberalisation of public sector spectrum. Transport has the same commitment to implement liberalisation, and we have shared interests with MOD, and an established pattern of co-ordination over many years on aviation and maritime spectrum. Spectrum is also being used more widely in road and rail transport as a technology enabler, helping to deliver improvements in capacity, reducing congestion, and safety, in line with Government commitments.

DfT, and the CAA, have been working to increase the efficiency of spectrum use for aviation and maritime navigation for several years, for instance as part of our 'e-navigation' initiative in the International Maritime Organization, and in our work on the European Single Sky project and in the International Civil Aviation Organization. International co-ordination and regulation is essential in the aviation and maritime industries, for economic as well as safety reasons. This limits the scope for trading and sharing spectrum, especially where the transport spectrum use is safety critical. This was recognised in the Cave audit, and in responses to Ofcom's consultation on the Spectrum Framework Review for the Public Sector.

The Government has made a commitment that safety will remain of paramount importance. The CAA has statutory obligations in respect of safety. Government is also committed to ensuring that sufficient spectrum remains available for essential public services and continued compliance with international obligations, including international spectrum management. DfT will continue to work with MOD and other users, within the scope of the Government commitments, to identify opportunities for freeing up spectrum,

recognising also that in aviation and maritime, the overwhelming majority of users are not public sector, but private industry and voluntary sector. We are committed to the interdepartmental objective to ensure the future allocation of spectrum to meet the needs of users in both public and private sectors and in industry, with emphasis on the provision of vital services and the generation of national wealth.

We recognise that spectrum trading is a key element of the strategy to securing optimal use of radio spectrum, together with spectrum liberalisation –removing unnecessary restrictions on the use to which spectrum may be put. The benefits of spectrum trading and liberalisation together, across the EU, were estimated in 2004 as €9bn per year. Bandsharing and ‘refarming’ – changing the spectrum frequencies used by an installation – are also options for increasing efficiency, and DfT/MCA is fully engaged, along with the CAA, in the technical work which is required to ensure that any such options could be implemented without detriment to safety. Neither trading nor sharing is possible where the UK is committed to international agreements on spectrum availability, unless our partners in ICAO and IMO agree.

Securing change in these United Nations agencies is a slow process, even when there is strong support across Europe, as for example there has been on emissions trading for aviation. In the case of spectrum, our major European partners are less advanced in introducing market mechanisms on public sector use, and some have decided against it. In the Netherlands, for example, it has been decided to give a statutory preferential position to ‘public interest’ tasks requiring spectrum, on the basis of a needs justification. In this context, it may be more difficult rapidly to progress proposals for spectrum efficiency which are not firmly linked to wider initiatives. It will be helpful to create linkages with proposals which are more generally attractive, for instance in reducing costs to industry or increasing usage efficiency of any congested airspace or shipping channels.

MOD’s proposals are limited to spectrum which is used within the UK, and do not include spectrum on which there is an international (NATO) commitment. We support the exclusion of spectrum on which Government has international commitments. We also support the MOD view that 2012 is the earliest date for trading and sharing within the dense pattern of sharing among MOD, aviation and maritime, emergency services, and other users in the 2.7-3.4MHz bands. We will continue to work with MOD and indepartmentally on the technical and policy aspects associated with achieving opportunities for efficiency gains here. This work will include studies to create an appropriate methodology for ensuring protection of safety-critical spectrum applications, in the event of increased bandsharing or replanning. We support the principle of spectrum usage rights which are neutral as regards applications and technology. However, these do not currently take account of the effects of transmission at altitude or over water, which are clearly crucial for aviation and maritime respectively.

The Department’s more detailed comments are attached. These address some wider issues, as well as the specific points in the consultation questions, and we hope they will be useful in clarifying the issues which have to be taken into account in considering the way forward. We look forward to continuing to work collaboratively with MOD, other sharers and Ofcom as well as with transport industry stakeholders.

We are content for this response to be published on the website.

Yours sincerely,

Liz Duthie

DEPARTMENT FOR TRANSPORT DETAILED COMMENTS ON MOD CONSULTATION, UK DEFENCE SPECTRUM MANAGEMENT: AN IMPLEMENTATION PLAN FOR REFORM

Section 4

4.24 The MOD audit was designed to capture data for systems operating in UK or UK territorial waters and air space (including Northern Ireland). More consideration may be needed on the implications for civil aviation and civil maritime spectrum use in the Channel Islands and the Isle of Man, including discussions with the Ministry of Justice where appropriate.

4.31 We note that MOD's spectrum is treated as an asset in their accounting and budgeting arrangements. For aviation and maritime, DfT's interest in spectrum is primarily not as an asset for its own use, but as an enabler for international interoperability and safety standards in aviation and maritime, and for increasing the efficiency of transport industries. Just as for radio spectrum, international harmonisation and availability of standardised equipment are important enhancers of value in air and maritime transport. Strategically significant developments, like ports and airports and their transport connections, play a key role in productivity and competitiveness, and in ensuring sustainable growth and development.

4.31 DfT will take appropriate account of UK demand in formulating any proposals for increasing efficiency in use of spectrum, whether or not it is internationally regulated. In-band congestion is already taken into account in international co-ordination for aviation and maritime. Similar considerations apply to opportunities for increasing efficiency through bandsharing, where safety case requirements may have to be satisfied not only for sharing the same band(s), if this is possible under any international requirement, but also for use of the adjacent band(s). The long lead times for changing international regulation, together with the need for safety case and technical assessments, will be important factors in the Department's appraisal of any such options. Demand from sectors other than transport will have to be assessed against the impact on transport, taking related safety and efficiency issues into account.

Question 1 and Question 2: We are content with the overview of aviation and maritime uses, and we recognise that MOD will want to give priority to spectrum with potentially higher value, where this is possible. For the forthcoming DfT audit, and in discussions with MOD on shared bands, the Department's position will necessarily take account of the different factors that apply to transport uses of spectrum. We will continue to work cooperatively with MOD under the longstanding arrangements for the management of civil and military airspace.

4.45 and 5.50: We support the Government commitment to consider non-market assignment of spectrum if public sector requirements cannot reasonably be satisfied through existing national allocations or through the market, and there is a demonstrated safety or security critical need, or mandatory international obligation.

Question 3: We are content with the phased approach set out in Table 2.

4.71: We note that the Ofcom impact assessment in the *Spectrum Framework Review for the Public Sector* (January 2008), which was in compliance with section 7 of the Communications Act 2003, considered the impact on the public sector only. It did not include consideration of the potential impact, if any, on the private sector in aviation and maritime, where international and UK regulation requires use of specific spectrum bands. Costs and benefits were not expressed in monetary terms, and there was no assessment either of the effects of the options on the economic benefits of international regulation in terms of inter-operability and competitiveness, or of the monetised or qualitative benefits of national security, emergency services, and public or transport safety. The implications for the environmental impact of transport were not considered. The impact of administered incentive pricing (AIP) charges on the private sector in aviation and maritime was not considered, but will be the subject of a separate consultation and impact assessment by Ofcom.

Section 5

5.7 to 5.12 : We agree that it would be premature to make any proposals for release or sharing of civil aeronautical and maritime spectrum in these shared bands. DfT, MCA and CAA will continue to work with MOD and the Met Office on ensuring safety and defining protection criteria.

5.8: The three lighthouse authorities – Trinity House, the Northern Lighthouse Board, and the Commissioners of the Irish Lights – also make use of spectrum, as footnote 3 identifies.

5.16 and 5.18: We agree that it would be premature to make any proposals for release or sharing in these bands.

5.59: Network Rail holds the licence to use 876-880MHz paired with 921-925MHz. Their use of this spectrum is required under UK regulations implementing wider EC decisions on rail interoperability. Interoperability and railway safety are closely allied. Interoperability deals with the standards to which railway assets must be designed and built, and later renewed or upgraded, and establishes a system of independent verification of compliance with these standards, followed by authorisation by the Safety Authority before it can be placed in service. Since the spectrum use is safety related, it is important that it is protected from interference. Network Rail, which is a private sector organisation, pays AIP.

5.61: We welcome MOD's commitment to consult other public sector bodies in appraising options to release spectrum where necessary, and to ensure its plans minimise interference and comply with international obligations, among other Government requirements. Where private sector licence holders are using the spectrum, they will also be consultees.

Questions 4, 5, 6: We broadly agree with MOD's plans, priorities and outline timetable for releasing and sharing spectrum. We note and support MCA's concerns about ensuring that spectrum usage rights fully protect safety of life services and international requirements from interference. The same conditions would apply to rail and air transport for such uses. We will continue to engage with MOD on shared civil aviation and

maritime spectrum bands to safeguard transport uses and users, particularly where spectrum is used for safety critical functions.

Questions 7, 8, 9: We have nothing to add at this time to the factors, options and approaches that should be considered before MOD decides to release and share spectrum, to manage spectrum for its own use, and to engage with the market. We support the proposal for a pilot trial of a third party band manager. It is taken as read that any third party arrangements would have to protect DfT and CAA international and statutory obligations.

We will continue to engage with MOD, with Ofcom and with other government spectrum users on policy and technical questions, particularly criteria for validating interference protection. This work will take some time to complete.

On completion of the DfT spectrum audit, and in the light of Ofcom's proposals for AIP for aviation and maritime spectrum, we will be considering the different factors that apply to spectrum which is used for civil aviation and maritime, under international regulation, and for the safety and efficiency of transport generally. One important difference between Transport and Defence spectrum is that almost all aviation and maritime spectrum use is by commercial undertakings in the private sector, in some cases subject to economic as well as safety regulation. Network Rail is also subject to economic regulation.

Table 7: Table 7 does not envisage any new sharing or release in the GSM-R bands in the near future. We would expect to discuss with MOD and the relevant rail organisations any proposals that might involve further sharing in these bands or in adjacent areas where out of band emissions could be problematic. We strongly support the MCA comment about the safety of life service operated by COSPAS-SARSAT at 406-406.1MHz.

Section 6

6.13: We agree that any third party manager appointed by MOD, or by any other Government department or public authority, would not have power to set or vary technical parameters and that Ofcom should continue to have responsibility for making regulations, setting and varying technical parameters, and enforcing licence conditions.

6.14: For joint management of civil and military aeronautical spectrum, arrangements are already in place, in the form of Directions to the CAA. These are made by the Secretary of State for Transport and agreed with the Secretary of State for Defence.

Questions 10, 11, 12: We have no comments at this stage on the options identified by MOD. We will continue in discussion with them as the work proceeds, to ensure that Transport interests and obligations to ensure safety and efficiency are safeguarded.

Section 7

The identification of related policy issues does not include any transport initiatives. Particularly relevant is the Single European Sky II package (referenced in paragraph 5.6), recently launched by the European Commission with projected funding of €2.1 billion for 2008-16. It is aimed at improving air traffic management performance and safety over the next ten to fifteen years. It will include new legislation, reformed governance arrangements, and improved technology. This is likely to have significant implications for

spectrum used for aviation, which will need to be taken into account by DfT, MOD, and other departments in developing spectrum management plans.

Annex A

A.1. 7: The possibility of spatial sharing in the bands 2700-3400MHz would have to be agreed interdepartmentally, in terms of the Government's commitments, particularly on safety and compliance with international obligations. The CAA's statutory responsibilities would have to be protected, and the interests of private sector licence holders taken into account.