



BAA's Response to Ofcom's
Spectrum Framework Review Consultation

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Introduction

BAA welcomes the opportunity to respond to RA/Ofcom's Spectrum Framework Review Consultation.

BAA is the world's leading private airport operator, with seven UK airports including the three London airports Heathrow, Gatwick and Stansted and eleven international airport interests. Heathrow is the world's busiest international airport in terms of passenger numbers. Every year over 130 million passengers travel through our UK airports. The UK Government forecasts that passenger numbers will double over the next 20 years.

The Government has recently given the green light to major expansion of London's airports in its 30 year Aviation White Paper. Announcing plans for a new runway at Stansted and a possible third runway at Heathrow, Alistair Darling said "Air travel remains crucial to our growing economy – our future prosperity depends on it". BAA will invest over £8 billion in airport development, including Terminal 5, over the next 10 years.

BAA's airports are some of the most complex radio environments in the UK, with a large number of service types and a heavy demand on spectrum. Radio communications are critical to airport operations, helping to ensure the safety and security of all airport users. Airport expansion and the provision of new wireless-based services will lead to increasing demands on the radio spectrum.

The lack of available spectrum, and the lack of flexibility in managing it, especially at Heathrow, are significant constraints on airport operations and the provision of services. BAA welcomes Ofcom's proposals to allow trading and liberalisation of spectrum which we believe could lead to more efficient use of spectrum and new innovative services if correctly managed. On the other hand the many safety of life services at airports need to be adequately protected from interference which could arise from change of use of spectrum.

BAA believes it is ideally placed to manage spectrum at airports, especially for low power indoor systems, due to its detailed specific knowledge of the built environments. We support moves towards a flexible micromanagement of spectrum at our airports.

Answers

Answers to specific questions in the consultation document are given below.

Question 1

Are there any other major medium-to-long-term spectrum management issues that this review should be considering? Are there any other significant technological or market developments that this review should be aware of when developing its thinking?

BAA believes that the Review covers all the major spectrum management issues.

Ofcom should regularly review and report on the success of market-based regulation in meeting its objectives.

As technology continues to develop, spectrum previously of limited value will become more attractive. By keeping developments under review, Ofcom can ensure that bands are released for auctions and trading appropriately.

Question 2

Do you believe it is useful to publish a compendium of issues? How frequently should it be published? What information should be included?

BAA believes a compendium of issues similar to the Radiocommunications Agency's Spectrum Strategy document would be useful. This would help inform spectrum users of Ofcom's plans.

Publishing on an annual basis should suffice. However, as spectrum management is set to change rapidly and radically from 2005, timely updates, via Ofcom's web site, should be made available (e.g., updates to the frequency table).

The following information should be included:

- Information on spectrum usage and the results of spectrum monitoring
- Information on the volume and type of interference occurrences notified to Ofcom
- Information on the volume of trades and volume of variations of licences or licence types
- Reserved spectrum that is likely to be released within the next 5 years
- Links to related consultations/studies which impact upon spectrum management issues
- Links to monitoring data files (this would allow spectrum usage trends to be assessed and sources of intermittent interference identified)
- Interference guidelines for each licence class
- Assessment of the success of market-based regulation

Question 3

Are there any other issues of sufficient significance to merit mention in this document?

BAA is not aware of any other such issues.

Question 4

Are there important lessons to be learnt from experience in other countries that is not addressed here?

BAA believes relevant experience from other countries has been addressed in the Review.

Question 5

Do you agree with Ofcom's intent to maximise the use of trading and liberalisation?

BAA believes that trading and liberalisation will benefit UK industry, the citizen-consumer and airport stakeholders by increasing spectrum efficiency and promoting new services. BAA therefore supports Ofcom's intent. However the many critical services at airports need to be adequately protected from interference which could arise from change of use of spectrum.

Question 6

Are there other areas, apart from those identified above, where trading and liberalisation should be restricted? Are there areas identified above where you believe the trading and liberalisation could be fully implemented?

BAA agrees with Ofcom that aviation bands are not suitable for trading and liberalisation.

Question 7

Do you agree with Ofcom's approach to providing spectrum for licence-exempt use?

BAA agrees that spectrum should in general be licence-exempt if there is a low risk of congestion, provided also that the risk of interference to critical systems such as aeronautical communications is acceptable. This will be easier to achieve if the maximum radiated powers in licence-exempt spectrum are low.

BAA believes that light touch e-licensing, as used in the 5 GHz C Band, together with public access to information on the locations of existing licences, can in many cases be a more appropriate solution than no licensing, particularly for higher power and longer range applications such as WiMax. Light licensing enables easy access to the spectrum, but at the same time allows potential and existing users to assess interference risk.

BAA believes that Ofcom should re-evaluate licence-exempt spectrum requirements for the next 5-10 years using updated figures & projections taking into account high density user environments, such as airports. Ofcom's view on the amount of spectrum required is based on user data rates of 100Mbits/s. This figure was suggested by SMAG, who consulted on the public use of licence-exempt spectrum back in 2002. It is, therefore, likely that the figure is already a few years out-of-date. Indeed, user data rates of 100Mbit/s are already available using today's technologies. The development of UWB and other technologies will enable significantly higher data rates.

However Ofcom must ensure that there is sufficient licensed spectrum available since BAA and other businesses cannot base critical services on licence-exempt spectrum.

BAA does not agree with Ofcom's proposal to remove the need for licences for on-site business radio users (section 4.4.1), since these licence types are used extensively for critical services at airports. If Ofcom does not continue to manage interference in these bands then the risk of interference would compromise airport operations.

Question 8

Is Ofcom's proposed methodology to estimate the amount of spectrum provided for licence-exempt use likely to deliver the right results?

With so many inter-related variables (e.g., future applications, increasing user densities and data rates, maximum ranges, transmit power levels) it is clearly difficult to estimate the appropriate amount of spectrum for licence-exempt use. Nevertheless BAA agrees that Ofcom should attempt to estimate the required amount, particularly during peaks of demand. It is presently unclear whether Ofcom's spectral estimate of 800MHz has considered demand peaks.

There are also some fundamental policy concerns that must be resolved such as the future of overlay technologies such as UWB which could raise the overall noise floor in the licence-exempt band and create a new wave of congestion.

Increased range for licence exempt use in rural areas seems appropriate.

Question 9

What is the appropriate timing and frequency bands for making available any additional spectrum needed for licence-exempt use?

The extended use of the 5GHz band seems appropriate. BAA agrees that contiguous spectrum is more useful than non-contiguous.

Question 10

Do you agree with Ofcom's longer-term proposals for spectrum trading?

We consider Ofcom's proposals to be broadly appropriate. BAA's spectrum requirements cover relatively small geographical areas at airports, therefore BAA would be strongly supportive of market mechanisms which enable local use. Although secondary trading should enable disaggregation of licences, BAA is concerned that this may take some time to achieve until the spectrum market is well developed. Therefore BAA would urge Ofcom to distribute spectrum in local packages where possible.

Question 11

Is the approach set out here, and in Annex H, for developing technology-neutral spectrum usage rights appropriate? Are there alternatives?

BAA agrees with Ofcom's approach to enable technology-neutral rights without increasing interference.

Question 12

Should Ofcom do more to resolve interference?

BAA believes that Ofcom should maintain responsibility for interference management in licensed spectrum, including policing and dispute resolution where necessary.

BAA is supportive of Ofcom's proposal for a nationwide network of monitoring stations for proactive spectrum management.

Interference guidelines should be readily available and clear to spectrum users so that they can assess the risk of interference from other systems.

Question 13

To what extent should Ofcom intervene in promoting innovation?

BAA believes that market-based spectrum management will assist innovation by enabling more rapid access to spectrum. However it is not clear yet how quickly a market will develop and how easily innovators will be able to acquire spectrum. Therefore BAA believes that Ofcom should set aside spectrum for innovative applications under an extended test and development licence. The usefulness of this spectrum should be reviewed at regular intervals.

Question 14

Do you agree with Ofcom's proposed approach to harmonisation?

BAA agrees with Ofcom's proposal to mandate harmonisation as appropriate where the spectrum is not tradable, but not to mandate harmonisation in tradable spectrum.

Question 15

Can you foresee any problems with the proposed approach to harmonisation other than those listed above?

BAA does not foresee any additional problems with the proposed approach.

Question 16

Do you agree with Ofcom's proposal to continue with division by frequency as the primary method of dividing the spectrum?

BAA believes that division by frequency is the most appropriate method to divide the spectrum. However, as market mechanisms develop it is likely that users will apply alternative methods available following primary division.

Question 17

Is Ofcom's approach of not intervening to mandate entitlements in time appropriate?

BAA considers Ofcom's proposals to be appropriate. It should be up to the licence-holder alone to decide whether to grant entitlements in time.

Question 18

Do you agree with the RIA?

BAA broadly accepts the RIA.

*Duncan Tolson
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