

I refer to the consultation paper on Ultra Wideband. There are only two issues that I wish to raise in this response.

The first issue concerns question 8: **"Are there any major technical studies that have been omitted?"** and in particular those examining UWB devices on aircraft operations.

I refer to the Mason report on the economic value of UWB commissioned by Ofcom. In section 2.1, the positioning of UWB is that it could complement existing WiFi and Bluetooth as it is cheap, has higher speeds and lower battery power consumption. This suggests strongly that it could appear in portable personal electronic devices like laptops and media players. These will be carried on board for use in flight journeys.

The consultation document only cites one report (Draft ECC Report on UWB below 10.6GHz). There are numerous other reports of concern about potential effects of UWB on aeronautical systems from various industry bodies, including:

1. International Civil Aviation Organisation
<http://www.icao.int/icao/en/ro/apac/apanpirg12/cnsmet/ip06.pdf>
2. Air Transport Association of America
<http://www.airlines.org/about/files/kennardpdf.pdf>
3. Aircraft Owners and Pilots of America
http://www.aopa.org/whatsnew/air_traffic/uwb_coalition.pdf

Our concern is that the frequencies that are proposed both by Ofcom and FCC still overlap the Altimeters (4200-4400 MHz) and Microwave Landing System (5030-5150MHz) used by aircraft.

Furthermore, there is much on-going work studying the use and effects of UWB radio technology. From the two commissioned groups, RTCA SC202 and EUROCAE WG58, both tasked with studying the effects of increasing numbers of RF transmitters of various kinds in aircraft. The Terms of Reference of the SC202 working group for phase 2 of their work specifically states *"focus on emerging PED technologies, for example ultra-wideband devices or pico-cells"*. Their published milestone for producing their phase 2 report is December 2006.

There is also the more general study under the ITU itself. ITU-R Task Group 1-8 *"Compatibility between ultra-wideband devices and radiocommunications services"*

Whilst there is outstanding work to determine the safest and effective ways of managing the use of PEDs of all kinds on board aircraft, a more cautionary approach should be adopted and care and consideration given to the possible outcomes of the work here.

The second concerns part of question 12: "Should there be a mandated ability to turn UWB transmitters off?" .

Our response to this question is yes, there must be. If there will be inclusion of UWB radios in portable devices like Laptop computers and or personal entertainment devices (e.g. Apple Ipods) in the future, then these will be carried and used on board aircraft by their owners. In these circumstances, it may then be possible for them to use the devices provided that it is appropriate part of the flight stage (cruise at altitude where certain electronic devices may be used).

I refer also to the work of the Consumer Electronics Association who have tasked themselves to arrive at a universally accepted symbology for Transmitting - Personal Electronic Devices (T-PEDs) which indicate whether the transmitter part of the device is on or off. The document can be found at :

http://www.ce.org/publications/books_references/Recommended_Practice_for_PEDs-V_1.0_October_2004.pdf

This effort has been acknowledged by many, including the RTCA SC202 working group as a step in the right direction. It is our view that Ofcom should support this effort by acknowledging the effort and indirectly contributing by mandating that portable devices with UWB (and other RF transmitters) have a switch to turn on/off the radio and the visible indicator to show the status.

In summary, British Airways does not disagree with the approach taken by Ofcom regarding the value of UWB and its economic effects if not properly legitimized. The main area of concern for us is the management of the risks of increasing numbers and kinds of electronic devices in aircraft and how safety is not compromised.

It is more the responsibility of the CAA and EASA bodies to regulate and possibly mandate how airlines manage and control PEDs as is currently the case with existing technology like WiFi and Bluetooth. However, more visibility of reference to and cooperation with these bodies on the safety of aircraft would be reassuring.

Thank you.

For and on behalf of British Airways plc

Fergus Boyd

Consultation questions

Q1: Are these the appropriate topics to be consulting on?

Q2: Do you agree with this analysis of our statutory duties? Are there any important factors that have been omitted?

Q3: Do you agree with the economic study? Are there other studies that Ofcom should be conducting?

Q4: Is there a better way that future use of the spectrum could be taken into account?

Q5: What is the most appropriate solution to the potential interference from UWB to BFWA?

Q6: Would it be possible to achieve sufficient isolation between radio astronomy and UWB through practical methods of physical separation?

Q7: Are there any other options that we should consider?

Q8: Are there any major technical studies that we have omitted?

Q9: Have we made an accurate assessment of the existing studies?

Q10: Do you agree that we should seek a common European framework for the introduction of UWB?

Q11: Have we proposed the most appropriate mask? Will it be possible to deliver equipment conforming to this mask?

Q12: To what extent should we define parameters such as those listed above? What is the most appropriate definition for each of these parameters?

Q13: Is our proposed approach to international bodies appropriate?

Q14: How should we best deal with the precedent potentially set by our proposed approach to UWB?

Q15: What should Ofcom's role be in setting and monitoring EMC standards?