

6 September 2013



Airports Commission
6th Floor
Sanctuary Buildings
20 Great Smith Street
London SW1P 3BT

Foundry House
3 Millsands
Riverside Exchange
Sheffield
S3 8NH

T 0300 060 1104

By email only to noise.paper@airports.gsi.gov.uk

CC: Richard Plant, Tania Plahay Defra.

Dear Sir or Madam

Aviation Noise Discussion Paper

Natural England welcomes the opportunity to comment on the above consultation.

As the Government's advisor on the natural environment, our purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

In preparing this response we have had discussions with the Environment Agency to ensure that we provide you with consistent messages on the environment.

Our detailed response is attached in the annex to this letter. If you have further questions regarding our response to this consultation, please contact Clare Warburton, Senior Environmental Specialist on 0300 060 1843 or at clare.warburton@naturalengland.org.uk.

Yours faithfully

David Drake
Acting Director, Land Use

Annex

Introduction

1. Natural England is the Government's advisor on the natural environment, and as such our purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.
2. Natural England has provided responses to a number of recent aviation consultations including the Aviation Policy Framework (APF) and Airports Commission consultations on sifting criteria, climate change, and short, medium and long term measures. Our responses can be viewed at [Natural England's website](#).
3. We welcome the opportunity to comment on the aviation noise discussion paper. We have focused our response on the questions that are relevant to our remit:

To what extent does introducing noise at a previously unaffected area represent more or less of an impact than increasing noise in an already affected area?

To what extent should noise concentration and noise dispersal be used in the UK? Where and how could these techniques be deployed most effectively?

Tranquillity and Protected Landscapes

4. Current government policy on airspace, as discussed in the Aviation Policy Framework (APF) [1], is to concentrate aircraft movement along the fewest possible number of routes and to avoid densely populated areas. Alongside this, both the APF and the current DfT consultation on guidance to the CAA on environmental objectives in relation to its air navigation functions [2] recognise the requirement to have regard to the purposes of AONBs and National Parks and to take account of these when assessing airspace changes.
5. We welcome the recognition given in Chapter 2 of the Airport Commission's Aviation Noise Discussion Paper to the importance of areas of tranquillity. This is in line with the National Planning Policy Framework (NPPF) which states that: *'Planning policies and decisions should aim to identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason' (para 123)* [3].
6. We would, however, like to see greater recognition of the issues in relation to protected landscapes. The NPPF states that: *'great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and AONBs which have the highest level of protection in relation to landscape and scenic beauty' (para 115)*. Tranquillity is an essential element of many of our nationally protected landscapes, one that makes a significant contribution to people's experience and enjoyment of these landscapes. Tranquillity is one of the 'cultural ecosystems services' that protected landscapes provide; these include the *non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation and aesthetic experience* [4], and as such can significantly contribute to people's quality of life.
7. We recognise that seeking to protect both densely populated areas and quiet areas from aviation noise can lead to conflicting priorities. This is leading to increasing pressures on tranquil areas. For example to accommodate increased numbers of flights air space consultations by National Air Traffic Services (NATS) have proposed increased overflying of

the New Forest National Park, the North Wessex Downs, the Cotswolds, the Mendips, the Quantock Hills, the Blackdown Hills, the Shropshire Hills and the East Devon AONBs, and the Chilterns AONB.

8. A House of Commons Transport Committee 2009 report on air space [5] identified that the CAA's West End Area Airspace Changes, implemented in March 2006, had resulted in a 21% overall increase in air traffic flying over the Shropshire Hills Area of Outstanding Natural Beauty. Similarly the changes to the CAA's Terminal Control South West in January 2008 redirected flight paths over parts of the New Forest National Park. The report concluded that *'Tranquillity is a key factor in sensitive areas such as National Parks and Areas of Outstanding Natural Beauty. Current guidance appears to allow unchecked increases in aviation activity over these areas. Without some level of constraint, the noise environment in these areas might degrade progressively as traffic increases'*.
9. The Transport Committee report accepted that there was a paucity of quality research about tranquillity and the effects of aircraft on tranquil areas and recommended: *'The DfT and the CAA should examine the case for adopting maximum limits on noise levels and numbers of aircraft permitted per hour over sensitive areas such as National Parks and Areas of Outstanding Natural Beauty.'*
10. A recent report by the Environmental Research and Consultancy Department of the CAA [8] concluded: *'The importance of recognising and preserving tranquil spaces, both in rural areas and urban environments has been described in this report. This subject is an ongoing area with more research and developments expected. This is likely to include methodologies used to measure and quantify tranquillity and its benefits to society within the UK. Recent work has highlighted the need to incorporate perceptions of the meaning of tranquillity, alongside measurements of noise and visual intrusion, and the requirement for this to be taken into account by policy makers and planning organisations going forward.'*
11. We recommend that a balanced approach is taken to noise management that seeks to protect both densely populated areas and quiet areas, such as protected landscapes, from aviation noise. The Noise Policy Statement for England [6] offers one such approach and is applicable to all sources of noise including aviation noise. It proposes a number of aims for managing noise: firstly to avoid significant adverse impacts on health and quality of life from noise; secondly to mitigate and minimise adverse impacts; and thirdly to improve health and quality of life through proactive management of noise. The protection of quiet places is recognised as part of these aims. Research has shown that there is a strong link between health and quality of life and access to the natural environment [7].
12. We recommend that the Airports Commission carefully assess the noise impacts of any new airport capacity on surrounding protected landscapes and, in line with the NPS, seek to avoid and/or find alternatives to the development of new aviation capacity in locations where there would be significant adverse effects on protected landscapes. The most significant impacts are likely to occur during take-off and landing and the revised CAA guidance (currently out to consultation) [2] recommends that *'where practicable, and without a significant detrimental impact on efficient aircraft operations or noise impact on populated areas, airspace routes below 7,000 feet (amsl) should, where possible, be avoided over Areas of Outstanding Natural Beauty (AONB) and National Parks'*. Significant adverse impacts can occur above 7000 feet, particularly where there are cumulative impacts from multiple flightpaths over protected landscapes (as referenced in 7 and 8 above). Environmental assessments for new airport developments should give due consideration to such issues.
13. If there are circumstances where it is not possible to avoid adverse effects on protected

landscapes, environmental assessments should consider how the impacts can be mitigated or minimised through proactive management of aviation noise close to protected landscapes, where possible seeking solutions that aim to improve health and quality of life. Such approaches could involve setting limits on the number of flights, limits on noise levels, the use of predictable flight times or predictable periods of respite for protected landscapes, as for residential areas.

Aviation Noise and Biodiversity

14. Noise generated by airport operations and aircraft movement, particularly in approach and climb out areas, can affect wildlife. Impacts can be significant if they affect nationally and internationally designated nature conservation sites, as well as other sites of importance for nature conservation, priority habitats and protected species.
15. Disturbance to birds arising from aircraft movements can affect bird distribution and behaviour, although this varies with species and circumstances. A recent Defra literature review [9] looking at the impacts of anthropogenic noise on UK protected species identified that there is overlap of the hearing range of birds (up to 10kHz) with the dominant frequencies of air traffic (up to 5kHz). The review makes reference to four studies on the impacts of aviation noise on birds. It concludes that the studies are observational and show possible impacts, though it is not possible to draw strong evidence from these studies because they are unable to remove confounding factors. An English Nature review [10], which looked at a wider range of studies, concluded that low flights cause the most disturbance, with cliff-nesting and other colonial seabirds (during the breeding season) and flocks of waterfowl (during the winter) being the most vulnerable. It recommends that flights over sensitive sites should be at least 500m (1640ft) above surface level, and preferably 1000m (3280ft).
16. Natural England is producing aviation sensitivity maps for the major airports in England. These will identify designated sites that are most likely to be sensitive to bird disturbance effects from overflight by aircraft at altitudes below 500m. We have shared early versions of the sensitivity maps with the Airports Commission and agreed they could usefully inform both stakeholders and the Commission's assessments.
17. The CAA's CAP 772 [11] describes the risks presented by birds to aircraft. Risk depends on species involved including size and numbers (e.g. solitary or in flocks), as well as their distribution and movement. Bird control interventions such as pyrotechnics and distress signals can be used to disperse birds at airports where there is a bird strike risk. These techniques are necessary for safety reasons but, depending on their nature and intensity, could have significant adverse effects on bird populations.
18. Under the 2006 Natural Environment and Rural Communities (NERC) all public bodies have a legal duty to 'have regard' for biodiversity in their decision-making processes. National and international nature conservation sites such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Ramsar sites, and proposed sites (pSPAs/cSACs/pRamsars) are legally protected:
 - 18.1 SSSI's are legally protected under the Wildlife & Countryside Act 1981 (as amended by the Countryside & Rights of Way Act 2000). As statutory undertakers, airport operators are a s28G authority under the Wildlife and Countryside Act (as amended) and as such have a number of duties, including the duty to exercise functions to further conservation and enhancement of SSSIs. S28H provides a specific duty on S28G authorities to consult Natural England before allowing planning permission which might damage a SSSI.

18.2 SACs and SPAs are protected as European Sites in England by the Habitats Regulations 2010 (as amended) which transpose the relevant parts of the Habitats Directive into domestic law. Ramsar sites are subject to the same procedures as a matter of UK Government Policy. The NPPF confirms equivalent protection to European sites for potential SPA, possible SAC, listed and proposed Ramsar sites and sites identified or required for compensatory provision.

18.3 Under the Habitats Regulations 2010 any proposal for a new or expanded airport in or close to a European designated site, would require the developer to provide information to the competent authority that would enable them to:

- determine whether the project is likely to have a significant effect on the site, either alone or in combination with other plans or projects.
- If such an effect cannot be excluded to make an Appropriate Assessment of the implications for the site in view of its current conservation objectives and determine whether the project will adversely affect the integrity of the site.

18.4 Further Information on international and national designations is available from [Defra](#) and [Natural England](#).

19. We recommend that the Airports Commission carefully assesses the impacts of any proposed airport expansion or new airport development at locations that are close to national and international sites, particularly those designated for their bird interest such as SPAs/pSPAs or Ramsar/pRamsar and SSSIs. Detailed consideration should be given to flights over such designated sites and to bird control measures. The disturbance of birds caused by the noise and visual impacts of aviation, as well as the potential intensity of bird control interventions which would be necessary in order to run the airport safely, was a key consideration at the public inquiry for Lydd Airport which lies adjacent to the Dungeness SPA/pSPA/pRamsar and SSSI, and shows this importance of considering these risks at an early stage.

20. In conclusion we would highlight the importance of considering the location of airport development in the context of landscape and nature conservation designations at an early stage in order to shape sustainable solutions that minimise impacts on the natural environment.

References:

1. Aviation Policy Framework, March 2013
2. Guidance to the CAA on Environmental Objectives Relating to the Exercise of its Air Navigation Function, DfT, 2013
3. National Planning Policy Framework, DCLG, March 2012
4. Ecosystem Services website, <http://www.ecosystems-services.org.uk/ecoserv.htm>.
5. The Use of Airspace, The House of Commons Transport Committee, 2009
6. Noise Policy Statement for England, Defra 2010
7. Our Natural Health Service: The role of the natural environment in maintaining healthy lifestyles, NE 179, 2009
8. Tranquility – an overview, Environmental Research and Consultancy Department, CAA, 2012
9. The Effects of Noise on Biodiversity, NO0235, Defra 2013
10. Disturbance Effects of Aircraft on Birds, English Nature, 1999
11. Birdstrike Risk Management for Aerodromes, CAP 772, 2008