

APP/L2250/V/10/2131934 & APP/L2250/V/10/2131936

SECTION 77 TOWN AND COUNTRY PLANNING ACT 1990 – REFERENCE OF APPLICATIONS TO  
THE SECRETARY OF STATE FOR COMMUNITIES AND LOCAL GOVERNMENT

TOWN AND COUNTRY PLANNING (INQUIRIES PROCEDURE) (ENGLAND) RULES 2000

**PROOF OF EVIDENCE OF NIGEL DEACON BSc**  
**ORNITHOLOGY AND BIRD CONTROL**

In respect of:

Planning Application Reference: Y06/1647/SH (New Terminal  
Building)

Planning Application Reference: Y06/1648/SH (Runway Extension)

relating to land at London Ashford Airport, Lydd, Romney Marsh, Kent, TN29 9QL

## **Contents**

1. Qualifications and Experience .....	3
2. Background .....	4
3. Scope of Evidence .....	5
4. Conclusions .....	11

## **Appendices**

1. Bird Hazard Risk Assessment (revised 2010)
2. Control Management Plan (revised 2010)
3. The Relationship Between Commercial Airport Operations and the Bird Populations of Adjacent Wetlands in the United Kingdom (WeBS Study)
4. Literature List
5. A Study of the Impacts of On-Airport Bird Control Activities at LAA on Bird Communities at Adjacent Bird Reserves
6. A Desk Study of the Bird Populations of the Dungeness Peninsula (Updated November 2010)

## **Proof of Evidence of Nigel Deacon in respect of Ornithology and Bird Control**

### **1. Qualifications and Experience**

- 1.1 I am a Bachelor of Science (Hons) in Zoology and a member of the UK Birdstrike Committee.
- 1.2 I have twenty seven years' experience in ornithological work, primarily in managing birdstrike risks to military and commercial aircraft. This has included:
  - 1.2.1 The establishment and management of bird control teams at UK RAF stations (14 different sites);
  - 1.2.2 The training of more than 2,000 airport employees in wildlife;
  - 1.2.3 management theory and practice and the training of airport management and CAA Aerodrome Inspectors;
  - 1.2.4 Auditing of wildlife management systems at a large number of UK and overseas civil airports (including joint audits with the CAA inspectors);
  - 1.2.5 Writing of wildlife management policy documents for the CAA and many UK airports;
  - 1.2.6 Providing wildlife/bird issues technical advice to major airlines (including British Airways) and aircraft manufacturers (BAE Systems and Airbus);
  - 1.2.7 Providing aerodrome planning and safeguarding technical support to many UK airports (over 100 items of casework);
  - 1.2.8 Presenting technical papers and presentations at many venues, including the International Birdstrike Committee; and
  - 1.2.9 Ten years of work on wildlife radiological issues at UK nuclear licensed sites.
- 1.3 I have been a director of Airfield Wildlife Management Ltd, a company established in 1985 as a provider of services in the field of birdstrike prevention, for 20 years, and have recently assumed the role of Managing Director.
- 1.4 I have had a long working relationship with the Applicant, pre-dating the development proposals, and have been involved with the Applications since June 2005, when I was instructed to produce a Bird Hazard Risk Assessment (Appendix 1) and, subsequently, a Bird Control Management Plan (Appendix 2).

## **2. Background**

- 2.1 My proof of evidence addresses ornithology and in particular, birdstrike risk and bird disturbance matters in respect of the Applications.
- 2.2 This proof will be complemented by the proof of evidence of Dr Roy Armstrong, who will present evidence on the behavioural mechanisms of birds' response to disturbance and bird conservation issues.
- 2.3 The ornithology matters that remain at issue (i.e. which have not been agreed under a Statement of Common Ground with the Rule 6 Parties ) are as follows:
  - 2.3.1 Whether or not the Applications would be likely to have a significant effect on the SPA, pSPA, pRamsar and RSPB reserve and whether or not the Applications would adversely affect the integrity of the SPA, pSPA and pRamsar by reason of sufficient disturbance of bird populations caused by changes in aircraft activity to cause declines in bird populations. My evidence, supported by that of Dr Armstrong, will show that there would not be a likely significant effect on the SPA, pSPA, pRamsar and RSPB reserve but in any event the development proposals would not give rise to an adverse affect on the integrity of the SPA, pSPA and pRamsar as a result of changes in aircraft activity;
  - 2.3.2 Whether or not the Applications would be likely have a significant effect on the SPA, pSPA, pRamsar and RSPB reserve and whether or not the Applications would adversely affect the integrity of the SPA, pSPA and pRamsar by reason of sufficient disturbance of bird populations caused by the Applicant's bird control/birdstrike risk management plan. My evidence, supported by that of Dr Armstrong, will show that there would not be a likely significant effect on the SPA, pSPA, pRamsar and RSPB reserve but in any event the development proposals would not give rise to an adverse affect on the integrity of the SPA, pSPA and pRamsar as a result of the Applicant's bird control management plan or the birdstrike risk management plan;
  - 2.3.3 The design and extent of study required to produce an informed bird hazard risk assessment that would satisfy the current requirements of the safety regulator (CAA). My evidence will show that there is sufficient material for such a risk assessment; and
  - 2.3.4 The amount of detail and flexibility incorporated into the bird hazard risk assessment and bird control management plan documents. My evidence will show that there is sufficient detail and flexibility for a satisfactory assessment and plan.

### **3. Scope of Evidence**

#### **3.1 Extent of Disturbance of Birds by Changes in Aircraft Activity.**

- 3.1.1 The Applicant's development proposals would lead to some changes in the frequency and constitution of aircraft activity compared to current operations, most notably the introduction of modern twin-engine, short to medium range airliners such as the Boeing 737 and Airbus A319, aircraft that are capable of operating from the Airport at present, but which require a runway extension to operate efficiently and economically with full payloads.
- 3.1.2 Natural England and the RSPB have expressed concerns that the changes in aircraft activity will have adverse impacts on the bird populations of the SPA, pSPA, pRamsar and RSPB reserve due to changes in noise exposure and/or visual impact from the changes in the aircraft fleet mix.
- 3.1.3 Whilst experiments and direct observations have shown that aircraft overflights have the potential to cause disturbance effects in bird species, these do not replicate the type of aircraft operations that occur at commercial airports, as they have involved small aircraft (usually at very low altitude) or military aircraft with very high noise levels and unpredictable flight patterns.
- 3.1.4 A large amount of experience at UK airports adjacent to SPAs and other designated sites (e.g. Liverpool, Glasgow, Belfast City and City of Derry Airports) has shown that busy commercial airports and substantial adjacent bird populations can coexist without conflict. This experience has been replicated at major airports and important wildlife conservation sites worldwide, and is further supported by our analysis of the Wetland Birds Study (WeBS) data at monitored sites around the UK airports referenced above (Appendix 3).
- 3.1.5 The changes in aircraft types proposed at the Airport under the Applications will lead to a very small change in the visual disturbance aspect (see Appendix H to LAA/10/A, the Proof of Evidence of Mr Clive Self MA) and the changes in the number of additional noise events (an anticipated doubling of movements) would not be expected to cause more disturbance than events already experienced – in fact, habituation increases with more frequent exposure to non-hazardous stimuli. Additionally, the proposed larger passenger aircraft will not overfly the area to the south east of the Airport. The proof of Dr Richard Perkins discusses aircraft noise issues in detail.
- 3.1.6 In order to address the concerns of Natural England and the RSPB, I will demonstrate that:

- 3.1.7 Birds are highly tolerant of aircraft activity, as can be demonstrated by the very large and varied populations that live alongside airports in the UK and worldwide and the wide range of species that breed on military and civil aerodromes;
- 3.1.8 Although review of the relevant literature (Appendix 4) appears to cast a varied picture of the effects of noise (aircraft and other) disturbance on birds, these studies are not comparable to the operation of a commercial airport and there is no compelling evidence of negative impacts on bird populations caused by the noise and/or visual aspects of commercial aviation related to airport operations; and
- 3.1.9 A study of the WeBS monitored bird populations of designated sites adjacent to UK airports – Belfast city, Derry, Liverpool and Glasgow - compared to changes in aircraft movement rates (Appendix 3) has shown no indications of negative correlation between aircraft activity, whether total aircraft movements or air transport types, and monitored bird populations on adjacent sites. This study has demonstrated - through the statistical analysis of independently collected data - that aircraft movements at the four case study sites have not had a measurable negative impact upon bird populations in their vicinity. This data shows that bird populations vary independently of aircraft movements, including the capacity for bird populations to increase in parallel with increasing air traffic at the adjacent airport.
- 3.1.10 If there are any detailed or additional comments raised by Rule 6 Parties, these will be dealt with in rebuttal evidence as required.

### **3.2 Disturbance of Birds by Changes in Bird Control Activity.**

- 3.2.1 Natural England and the RSPB have expressed concerns that the increased scale of operation of the Airport will lead to an increased level of bird control activity that will cause disturbance of bird populations in the SPA, pSPA, pRamsar and RSPB reserve. Additionally, concerns have been raised that aerodrome safeguarding policy will have negative impacts on the management of the local RSPB reserves and other conservation sites.
- 3.2.2 However, in response:
- 3.2.3 All the techniques that will be used in the future are in place now at the Airport (and have been used for at least two decades), and used daily.
- 3.2.4 Although the frequency and duration of patrolling to detect birds and inspect the Airport's surfaces, lighting, and other operational areas will increase, this

will not lead to an increase in collateral disturbance of adjacent areas. This is because bird dispersal activity at developing commercial airports always progresses toward mainly surveillance and the (usually comparatively discreet) dispersal of hazardous birds as they arrive or approach the aircraft manoeuvring area, rather than the short-term, high-intensity “bird run,” (often dispersing large numbers of birds that have settled on the airport, in an attempt to protect individual aircraft movements) that tends to occur at smaller airports. Typically, the use of pyrotechnic birdscaring cartridges at UK airports declines, often dramatically, when the bird control organisation becomes more professional.

- 3.2.5 Additional techniques such as falconry that have the potential to cause some increased disturbance beyond the airfield boundary will not be used at the Airport.
- 3.2.6 Further increased training of Airport employees and appropriate mitigation measures will be introduced to reduce collateral disturbance to lower than current levels wherever possible. These measures are incorporated into the Bird Control Management Plan (Appendix 2).
- 3.2.7 The potential for increased disturbance of birds beyond the Airport boundary caused by bird control activity at the Airport was tested in a study carried out over the period 17<sup>th</sup>-18<sup>th</sup> June 2008 and submitted to Shepway District Council in 2009. This study was supplemented by further studies on 30<sup>th</sup> November – 1<sup>st</sup> December 2009, and 24<sup>th</sup> November 2010 (Appendix 5). These studies were commissioned to explore the likely “worst case scenario” effects of using standard bird dispersal techniques at maximum intensity at the SPA-adjacent Airport boundaries. These would have the maximum potential to cause disturbance of birds on the adjacent designated sites, and the aim was to formulate measures to mitigate these impacts where possible.
- 3.2.8 The study has demonstrated that distress call broadcasts have a highly specific effect on a limited number of target species, but that pyrotechnic bird scaring cartridges used at the Airport boundary can affect a variety of species in the adjacent environment. Any disturbance caused by pyrotechnics (bird scaring cartridges) will be mitigated by restrictions on the areas and modes of use. The findings of this study have been incorporated into the revision of the Bird Control Management Plan (Appendix 2). I consider this collateral disturbance to be minor compared to other sources of disturbance such as local game shooting and wildfowling on the land adjacent to the Airport. As is presently the case, bird dispersal activity at the Airport boundary will involve the occasional displacement of flocks of common species from fields close to the Airport to one of the many alternate feeding or loafing areas in the vicinity. This would not have a likely significant

effect on the SPA, pSPA, pRamsar and RSPB reserve and in any event would not give rise to an adverse affect on the integrity of the SPA, pSPA and pRamsar.

3.2.9 Aerodrome safeguarding policy has no retrospective powers to change or remove habitats attractive to birds, nor in the case of non-officially safeguarded aerodromes, such as the Airport, which have neither the powers to establish formal, mandatory safeguarding consultation process with the Local Planning Authority nor the ability to request that an application be “called in” via notification to the CAA. The Applicant will, therefore, have no statutory powers to block new developments. Therefore, any changes in this policy resulting from the growth of the Airport cannot negatively impact the existing habitats and their bird populations. Air safety will be balanced with local conservation interests by close consultation with Natural England, the RSPB and other interested parties (a consultative committee will be proposed). It should be noted that most bird species are insignificant in the birdstrike record and conservation of most species does not measurably increase the birdstrike risk.

### **3.3 Bird Hazard Risk Assessment.**

3.3.1 Core document CD1.33d, which was submitted by the Applicant to Shepway District Council in 2008, contains an assessment of the local birdstrike risks and is designed to inform the policies and priorities of the Airport's Bird Control Management Plan and local safeguarding practices. The Bird Hazard Risk Assessment (BHRA) is an iterative document and has recently been substantially updated and supplemented (Appendix 1).

3.3.2 Natural England and the RSPB have made a number of statements concerning the adequacy of the study to inform the BHRA, and have prepared a “required” methodology, including radar studies over a 12 month period and a requirement for Natural England’s involvement in the process.

3.3.3 These air safety matters are of course the remit of the air safety regulator (the Civil Aviation Authority) and not Natural England or the RSPB though I respond to their views below.

3.3.4 Natural England and the RSPB appear to be arguing that a different assessment methodology would either lead to the conclusion that the Airport is “unsafe” or that the Bird Control Management Plan would need to be amended to include unspecified measures that would have a negative impact on the birds of the SPA, pSPA, pRamsar and RSPB reserve.



- 3.3.5 However, the BHRA is a comprehensive, robust study that has been informed by a considerable amount of data, including: -
- 3.3.5.1 Historical birdstrike records.
  - 3.3.5.2 Internal bird count records kept daily over six years by Airport employees engaged in bird control duties.
  - 3.3.5.3 Up to 15 years of Wetland Bird Survey (WeBS) data for nine local sites - Dungeness RSPB Reserve, Long Pits, Lade Pit, Lade Sands, Brett Pits, Whitehalls Gravel Pits, Lydd West Gravel Pits, Scotney Pit and Walland Marsh.
  - 3.3.5.4 The extensive ornithological surveys commissioned by the Applicant (Appendix 6, amended November 2010, contains WeBS updates to 2009).
  - 3.3.5.5 Nine site visits which I have undertaken.
- 3.3.6 The extent and detail of this information exceeds that available at most UK airports, particularly those of comparable scale to the Airport, both at its current and proposed future levels of operations.
- 3.3.7 The BHRA is appropriate for an airport with the Applicant's long operating history, the scale of the proposed future operation and the local environmental conditions. Other much less comprehensive documents have been audited by the CAA at other UK airports without concerns being raised.
- 3.3.8 I consider that a radar study of the format proposed by Natural England and the RSPB to be unnecessary and inappropriate for the Airport. Furthermore, an Advisory circular issued by the United States Federal Aviation Administration on 23rd November 2010 (CD12.29) is the first attempt to set minimum standards for the performance and use of this equipment in the airport environment. The FAA-subsidised deployment of this equipment at US airports is still at the trial stage, and there is no comparable UK standards document or trial programme at present. In the absence of impartial baseline studies to prove the concept and relevance of radar for birdstrike risk assessment at an operational airport, and of any guidance from the UK industry regulator the Civil Aviation Authority, I would give no credibility to an assessment of whether the Airport is either "safe" or "unsafe" due to the birdstrike hazard, nor that it is less safe than other UK airports where such studies have not been carried out. Additionally, I cannot conceive of any finding that would materially change the content of the Bird Control Management Plan (Appendix 2) in such a way that it could increase impacts

on the birds of the designated sites. It should also be noted that the Airport does not currently operate any radar system.

### **3.4 Bird Control Management Plan**

- 3.4.1 The Bird Control Management Plan (Appendix 2) is a comprehensive, robust plan that far exceeds the detail provided at other UK airports (of a similar size). This is usually produced as a moderately “high level” document stating local policies, priorities and a general description of techniques to be applied that would be supplemented by additional instructions to staff in the form of “local operating procedures” or similarly titled documents that would include health and safety issues, firearms procedures and airfield driving. In the case of the Airport, this document goes further and expands on a number of areas, including safeguarding policy and the inclusion of an expanded section on bird safeguarding.
- 3.4.2 As with the risk assessment document, comments have been made about various aspects of the draft Bird Control Management Plan that has been submitted to Shepway District Council and which Appendix 2 updates (the draft Bird Control Management Plan was last submitted to the Council in December 2009 – CD1.45), in particular its “draft” nature and contended inadequate level of detail.
- 3.4.3 My assumption is that the concern of the use of the word “draft” is that this might conceal substantial changes that might be introduced before the document passes out of the draft phase to become a “live” document. This is a misunderstanding – in relation to its “draft” status, this is an iterative document that will be updated on a rolling basis, e.g. to incorporate any legislative changes in aviation, conservation, firearms and other areas that take place. The methodologies described in the document will not change unless there is a significant technological or technical breakthrough in the field of birdstrike prevention or a change in the regulatory requirements. It is also proposed that a condition is attached to any planning permission that is granted for the Applications that requires a Bird Control Management Plan to be submitted to Shepway District Council for approval (in consultation with Natural England and the RSPB) and that the Bird Control Management Plan be in substantial accordance with the Bird Control Management Plan submitted as part of the Applications (being the updated Plan contained in Appendix 2).
- 3.4.4 The Bird Control Management Plan is appropriate and comprehensive and substantially exceeds the standards described by the CAA in CAP 168 – Aerodrome Licensing (CD16.1), CAP 772 – Birdstrike Risk Management for

Aerodromes (CD16.2) and CAP 738 – Safeguarding of Aerodromes (CD16.4).

#### **4. Conclusions**

- 4.1 The proposed increases in aircraft activity at LAA would not have a likely significant effect on the SPA, pSPA, pRamsar and RSPB reserve's bird communities but in any event the development proposals would not give rise to an adverse affect on the integrity of the SPA, pSPA and pRamsar's bird communities.
- 4.2 The changes in the Airport's bird control procedures would not lead to an increase in disturbance of birds on adjacent designated sites above current levels, and measures would be put in place to reduce any such disturbance to below current levels.
- 4.3 The assessment of the birdstrike risk and the subsequent statement of birdstrike management policy – the Bird Control Management Plan – are compliant with, and exceed, the UK regulatory standards set down by the Civil Aviation Authority and are appropriate to the Airport's proposed operation.