

Applications by London Ashford Airport Ltd.

Site at London Ashford Airport Limited, Lydd, Romney Marsh, TN29 9QL

Reference APP/L2250/V/10/2131934

Summary of Evidence of Dr John Richard Allan

Birdstrike Risk Mitigation

7 January 2011

1. My name is Dr. John Richard Allan. I am head of the Wildlife Management Programme at the Food and Environment Research Agency (Fera), an executive agency of the Department of Environment Food and Rural Affairs (DEFRA).
2. I joined Fera in 1988 and have specialised in the study of birds as hazards to aircraft for the past 22 years. I have been head of the Birdstrike Avoidance Team ("BAT") since 1996 and head of the Wildlife Management Programme since 2008. I was presented with the Mike Khuring award in 2003 for services to birdstrike prevention and flight safety, and in 2005 I was appointed chairman of International Birdstrike Committee (IBSC), which is the main professional body for specialists in birdstrike prevention.
3. BAT acts as a retained consultant on all aspects of birdstrike prevention to the UK Ministry of Defence and to BAA plc. (formerly the British Airports Authority), which operates airports such as Heathrow, Stansted, Glasgow etc.. This service includes providing audit of bird control standards, specialist research, birdstrike risk assessments, 13km bird surveys and advice on safeguarding

issues. BAT provides similar services to other UK civil airports and to airports around the world. BAT also develops birdstrike hazard mitigation programmes and provides advice to its client aerodromes on the likely implications of new developments on the birdstrike risk at the site concerned. This involves assessing the numbers and species of birds likely to be attracted to a development (using appropriate data gathering techniques as required) and how their subsequent movements will influence the probability and likely severity of a birdstrike.

4. In my proof of evidence (document no NE/1/A), I briefly review the background to the birdstrike hazard to aircraft, including national and international regulation, and provide examples of incidents when birds of the types commonly found near Lydd aerodrome have caused serious accidents in the past. I then examine the different ways in which birdstrike risk can be assessed at aerodromes and the types of information needed to underpin these different risk assessment techniques.
5. In this context, I review the data available from Lydd Airport and the guidance on risk assessment for birdstrike provided by the UK CAA. I conclude that airport's birdstrike record is unreliable as it does not contain and reports of small bird species typically found in the strike sample at all aerodromes, that the bird controller's records of bird numbers are incomplete as they do not record over-flights of any species except swans and geese nor any birds on land adjacent to the airfield, and that the bird count data presented do not provide any information on the movements of hazardous birds which is key to assessing the risk that they pose. I therefore conclude that the airport should have undertaken proper vantage point surveys if it was to accurately assess the birdstrike risk and hence determine the level of bird management effort needed to control it.
6. To illustrate this point, Fera undertook a short series of vantage point counts at the airport and these data are described and contrasted with the information available from the airport for the same time periods. Although the data gathered by Fera are not sufficient to complete a full risk assessment they do serve to show how much information on bird over-flights is missing from the

applicant's submissions. In this context, I then review the applicant's ornithology report submitted in support of the original planning application. I review the appropriateness of the scope and methodology of the data gathering, the reliability of the risk assessment that has been conducted based on this information, and the consequent bird management proposals that have been produced. I conclude that, without the necessary information, properly gathered, it is impossible to develop an accurate picture of the bird control effort that would be required to maintain a safe operating environment at the developed airport, but, based on the very limited fieldwork conducted by Fera, the current proposals are likely to be insufficient, especially in terms of the off-airfield bird management and levels of safeguarding intervention likely to be needed if the development proceeds.

7. In its submissions, the applicant has suggested that it will be possible to minimise any impact on the surrounding areas of ornithological interest by lowering the volume of distress call broadcasts (despite the fact that elsewhere it acknowledges that pushing hazardous birds back as far as possible from the perimeter is desirable), minimising the use of pyrotechnics (despite the fact that many of the hazardous species in the area, such as game birds and waterfowl, do not make distress calls), and dealing with over-flights of waterfowl by a 'detect and warn' process instead of attempting to eliminate or modify the route of the flightline by off-airfield intervention. In the light of the written evidence provided by Airport Solutions about the potential liability issues surrounding a serious air accident, the airport operators duty of care, and the potential pressure from airlines to keep to schedules and tight turn-around times (see the appendix to my proof of evidence (document NE/1/B)), the airport's bird controllers will, in practice, need to escalate their bird control actions to whatever level is necessary to maintain a safe and efficient operating environment at the airport. This is an entirely appropriate position for any airport that puts public safety as its highest priority, but it means that assurances about the limitations of the intensity and scope of bird control actions cannot be relied upon.
8. Because of the lack of reliable data on bird numbers and movements around the airport it is not possible to develop a definitive bird management plan for

the airport, but I would expect that on-airfield bird control and habitat management would need to be deployed as detailed in the bird control management plan. In the event that off-airfield control does not prove possible for reasons of access or other constraints, the levels of control described, especially the volume setting for distress call equipment and quantity of pyrotechnics and live rounds used, may be considerably higher than suggested in the bird control management plan.

9. I would expect that off-airfield bird control will also be required. The need for management of the release of game birds is detailed in the bird control management plan, but additional bird management to deter Lapwing, Golden Plover Curlew and Black-Headed Gulls from the sheep pasture to the north of the airport will be required. This could take the form of bird scaring outside the airport perimeter or changing of the habitat by requesting, or paying, local farmers to change to crops that are less attractive to these species. If this is not carried out the large flocks observed during the Fera vantage point surveys would constitute an unacceptable hazard.
10. Overflying birds, particularly waterfowl will also need to be managed if the 'detect and warn' approach proves ineffective or unacceptable. This will involve identifying the feeding and roosting areas that the birds that overfly the airport exploit and either deterring birds from these areas or modifying the habitat to make the areas less attractive. For those species that roost or feed in the SPA, it is unlikely that the airport will be able to take action in the SPA itself, so management of birds across Denge Marsh may be needed. Dispersing birds from feeding or roosting sites that result in a flightline over the airport could be carried out, as could habitat management in these areas to remove feeding opportunities. Broadly speaking this could involve targeted dispersal of hazardous birds (swans, geese, smaller waterfowl, and cormorants) from fields or water bodies to the north and east of the airfield such as the gravel pits north of Lydd. If the gulls that currently roost on the foreshore at Greatstone-on Sea began to commute over the airfield to feeding sites inland, a similar process may need to be adopted.
11. Once a formal safeguarding process is in place, it would be very difficult for an airport operator not to object to a development that would increase the

birdstrike risk at their aerodrome, whatever its location. The issue is not where the proposed development is, but whether it increased the risk of a serious birdstrike. For example, if one or other of the conservation organisations operating near to Lydd proposed a development that was designed to attract large numbers of additional waterfowl, even in an area where such habitat already existed, the airport would find it very difficult to explain to its regulator (the CAA), its customer airlines and its insurers why it had not objected to the proposal if a serious accident with large waterfowl was to subsequently occur. Similarly, proposals to create habitat suitable for hazardous birds outside the current SPA might attract objections from the airport, especially proposals to the north of the aerodrome which might encourage more over-flights from waders, gulls or waterfowl, would need to be opposed by the airport. This has the potential to influence future enhancement of the local area for SPA species.