LAA/6/B

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

SUMMARY PROOF OF EVIDENCE OF ROY ARMSTRONG BSc, PhD

ORNITHOLOGY

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

LYDD
London Ashford Airport

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1. Professional Qualifications and Experience

1.1 I am a partner in Armstrong McCaul Biological Consultants (est. 1994) and a senior lecturer in Animal Conservation Science at the Centre for Wildlife Conservation, University of Cumbria. I have a B.Sc. (hons) in Zoology (Liverpool University 1987) and a Ph.D in Zoology (Glasgow University 1992) in the field of bird biology. My qualifications and experience are set out in my proof of evidence.

2. Scope of Evidence

2.1 I present evidence on the potential impact of the development on bird conservation in the vicinity of the Airport.

2.2 I conclude that the proposals would not have a likely significant effect on the SPA, pSPA and pRamsar and, in any event, would not have an adverse impact on the integrity of the SPA, pSPA and pRamsar. Further, in respect of the impact of aircraft on birds through disturbance, there would be no significant adverse effects on the SSSI and the RSPB Reserve.

2.3 I am familiar with, and have reviewed, the current scientific literature to provide an informed expert assessment of the impact of aircraft on birds through disturbance. I note that disturbance studies have developed significantly recently with clear distinctions between disturbance effects (response) and disturbance impacts (effect the disturbance has at site and population level).

2.4 I have assessed all of the bird species considered to be of conservation significance (using recent advances in Behavioural Ecology) in areas of perceived potential for negative impacts.

2.5 Bird populations are continually changing so I have reviewed the conservation "value" of these species and projected likely changes to allow an analysis of the potential future importance of these populations.

2.6 Finally, I have reviewed the likely impacts on each species from their known Behavioural Ecology or through extrapolation from similar species in conjunction with current understanding of Behavioural Ecology.

2.7 I reserve the right to deal with detailed or additional comments raised by Rule 6 Parties in rebuttal evidence.

3. Individual Issues

The Impact of Aviation on the conservation of birds.

3.1 There are many examples of airports next to thriving bird populations in important bird areas. In the UK these include SPAs, SSSIs and Ramsar sites designated for their waterfowl interests. Similar species assemblages are also found close to airports abroad, including reserves adjoining some of the busiest airports in the world.

3.2 The proposed development at the Airport includes three changes that are likely to have a significantly positive impact on neighbouring bird populations when compared with the no development/fallback position including, increased predictability of movements, the introduction of a cap on the numbers of helicopter flights and a limit on night-flying between the hours of 2300 and 0700.

3.3 Most studies of disturbance have concentrated on observations of birds' responses ("disturbance effect") to disturbance sources such as dog-walkers, aircraft etc. While this type of study can demonstrate a response to a stimulus, it tells us nothing about the effect of the disturbance on bird populations ("disturbance impact" Nisbet 2000).

3.4 Recent developments in Behavioural Ecology have focussed on disturbance impact and placed this in context to impacts on populations. This has revolutionised our understanding of disturbance with reference to conservation. It is generally accepted in avian ecology that population regulation is "density-dependent" and that an area supporting a population has a finite food supply that limits the population to the area's "carrying capacity". Taking these factors into account, there would be no effect on the overall population of the Dungeness SPA.

3.5 It is clear from several recent studies that even where clear responses to disturbance occurs, the impacts of the disturbance are not considered likely to have any impact at population level.

3.6 Further recent studies have demonstrated the importance of night-time feeding. Even in circumstances where disturbance is sufficiently extreme to cause almost total abandonment of a site during daylight hours, undisturbed night-time feeding may be extensive and result in an area being fully exploited. These examples demonstrate that the two key groups of waterfowl present on the SPA (waders and wildfowl) are likely to benefit from no night-flying as a result of the development proposals at the Airport. This would represent an improvement on the present position and the position in the event that the development proposals are not consented given there would be no such restriction on night-flying.

3.7 A recent development in the understanding of behaviour in response to disturbance is the interpretation that responses are, in effect, responses to predation risk. This has important implications as anti-predator behaviour has been extensively researched and is relatively well understood (in comparison to say, responses to aircraft). The presence of "refuges" is likely to reduce disturbance impacts, as many species appear to be more "comfortable" when refuge areas are available close by. This is reflected in decreased flight initiation distances in response to potential predators. The presence of the RSPB's Dungeness Reserve close to the Airport is therefore likely to reduce any potential disturbance impacts associated with activities at LAA, as it clearly presents an excellent refuge.

3.8 Wildfowl Refuges (areas of wetland where no shooting is allowed) are very effective in supporting populations of wildfowl being hunted for sport throughout a much larger area. Wildfowl refuges need not be large to support local populations, even in areas of intensive wildfowling. As Fox and Madsen (1997) recommend “as a minimum [refuges] should have a diameter of three times the escape flight distance of the most sensitive species present”. It should be noted that these refuges are effective in a scenario where the disturbance stimulus is probably far more significant than disturbance caused by aircraft, as the stimulus (shooting) is large, frequent and reinforced with often lethal consequences. It is common practice to increase the efficacy of scaring through the use of non-lethal firearms with the occasional use of lethal firearms as this reduces the occurrence of habituation i.e. learning that a stimulus is not harmful.

3.9 A standard method employed in conservation for mitigation against disturbance is the maintenance of “Buffer Zones” i.e. areas with no disturbance, between the target and the stimulus. Alternatively, disturbance may be “zoned” with reduced disturbance close to the target and works “by restricting disturbance to regular predictable stimuli to which habituation is more likely”. The RSPB’s Dungeness Reserve covers almost 1000ha. It is clear that this site has large areas that would be far beyond the buffer zones suggested for mitigation against even an extreme stimulus.

Likely Changes to Bird Populations on the Dungeness Peninsula

3.10 The development of large-scale chains of refuges aimed at supporting waterfowl communities is a highly effective conservation tool. In some cases, it has the potential to alter the ranges of species. This appears to have happened recently with the extension of reserve networks. For areas to the South-Western edge of the range for wintering birds such as the UK, the provision of ideal wintering habitats is likely to have a reduced impact as suitable wintering sites to the North and East of the UK are developed to provide additional suitable wintering areas. This is further exacerbated by the impacts of climate change.

3.11 The UK with its comparatively mild, maritime climate, has traditionally supported large populations of migrant birds species seeking to avoid colder conditions. Wildfowl and waders (collectively termed “waterfowl”) from Greenland, Iceland, Svalbard, arctic Russia and Europe, use the UK’s coasts and waterbodies as relatively mild wintering grounds.

3.12 With recent ameliorations of winter conditions, many species are wintering further North and East than hitherto. Current predictions suggest that this trend will continue with increased amelioration of winter conditions and consequent reductions in many wintering bird populations in the UK, e.g., Smew.

3.13 The importance of the UK's waterbodies and coastal areas, in spite of recent cold spells, appears likely to reduce as species shift their wintering ranges North and East in response to climate change. This trend looks likely to continue and the numbers of many of the qualifying species for the Dungeness to Pett Levels SPA look likely to reduce in the near future.

4.0 Conclusions

4.1 Any species currently present is tolerant of existing levels of disturbance (which under current permissions could be increased without regulation in terms of night time flying).

Changes in the patterns of flights from the Airport will change in ways that are likely to reduce disturbance impacts, including flights becoming more regular and predictable, the cessation of night-flying and the introduction of a cap on the number of helicopter flights permitted. This will be an improvement against the fall back scenario should the development proposals not be consented.

4.2 Other, potentially more significant sources of disturbance already exist in the vicinity of the Airport on important local sites e.g. game shooting, bird watching without any material adverse effects.

4.3 In view of the distance from the Airport to local sites and the angle of approach from aircraft, any additional disturbance is unlikely to significantly affect the behaviour of key species.

4.4 Should any increased disturbance occur, the presence of very large refuge areas nearby and the opportunity to feed when disturbance levels are negligible would result in no significant disturbance impact.

4.5 Having examined the Applications and the Proof of Evidence of Nigel Deacon, I do not believe that the development proposals, through the impact of aircraft on birds through disturbance, would have: - a likely significant effect on the SPA, pSPA and the pRamsar and in any event would not have an adverse affect on the integrity of those sites; and any significant adverse effects on the SSSI and the RSPB Reserve.

4.6 Furthermore, it should be noted that irrespective of my conclusion at paragraph 4.5, for most of the species present in significant numbers, population sizes for most species can be reasonably expected to reduce, in many cases to the point of species no longer being present in the area, in the near future.