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Terry Ellames
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15 November 2007

Dear Terry

Application Numbers: Y06/1647/SH and Y06/1648/SH

Location: London Ashford Airport, Lydd

Supplementary information to the Environmental Impact Assessment (EIA) for a terminal building to handle 500,000 passengers per annum and 637 car parking spaces and the construction of a 444 metre runway extension

Thank you for consulting the RSPB on the supplementary information supplied by London Ashford (Lydd) Airport (**the applicant**) to construct a new terminal building and car parking area and a 444m runway extension (**the applications**).

As you are aware, the RSPB lodged objections to the applications originally submitted in December 2006 in our representation to you dated 5 March 2007. At that time, the applicants recognised that they had not submitted all the information necessary, particularly regarding their bird hazard management plan and information to inform the Appropriate Assessment (**AA**) - necessary under the Conservation (Natural Habitats &c.) Regulations 1994 (**the Habitats Regulations**).

The RSPB has considered the additional information supplied against each of our reasons for objection set out in our original representation. The supplementary information does not satisfy the RSPB's concerns regarding the applications; therefore, we wish to **maintain our objection**. The reasons for objection are set out in an annex to this letter, but are summarised below.

Legal and Policy Reasons for Objection

The RSPB has remaining legal and policy concerns, explained in detail in the attached annexes. These relate to:

Environmental Impact Assessment

The supplementary information adds more detail regarding impacts, and cumulative impacts with other projects, on the Dungeness to Pett Level Special Protection Area (**the SPA**) and the Dungeness Special Area of Conservation (**the SAC**) (**the European sites**). However, there are still gaps in relation to impacts on the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (**the SSSI**). The applicant has still not proposed adequate mitigation. The RSPB therefore still believes that the EIA does not meet the requirements of an 'Environmental Statement' as defined in Regulation 2(1) of the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999 (**the EIA Regulations**).

The RSPB had raised serious concerns about the baseline against which impacts should be assessed – previously the applicant argued that the baseline was 300,000 passengers per annum (**ppa**), as this was the potential number the airport could accommodate under their present permissions, as opposed to the current level of 3000 ppa. The RSPB notes that the applicant appears to have accepted the RSPB's line and the 'Statements to Inform' the AA's use the current level of 3,000 ppa as the baseline. This should be the baseline used by Shepway District Council's assessment of impacts.

The Birds Directive, the Habitats Directive and the Habitats Regulations

The applicant has now provided Statements to Inform the AA's that Shepway District Council must undertake under the terms of the Habitats Regulations. However, in the RSPB's view, the applicant has failed to demonstrate that there will not be an adverse effect on the integrity of the SPA or the SAC. As it cannot be judged that there will not be an adverse effect, the further tests (no less damaging alternative solutions, imperative reasons of overriding public interest and compensation) in the Habitats Regulations must be met before the applications can be consented. In the RSPB's view, these tests are not met because there may well be less damaging alternative solutions to expansion at Lydd Airport and we feel that there are not imperative reasons of overriding public interest that would override the impacts on internationally designated sites.

Planning Policy

The Kent and Medway Structure Plan (2006) and Shepway District Local Plan (2006) include policies supporting expansion at Lydd Airport subject to there being no material harm to/significant impact on internationally designated sites. The RSPB's view is that the supplementary information does not demonstrate that there will be no material harm/significant impact on these interests. Therefore, the applications do not comply with these policies.

The South-East Plan (due to be adopted 2008) does not include a policy for expansion at Lydd Airport, but it does support wetland creation in the Romney Marsh area. The supplementary information on the safeguarding policy does not provide any detail on how the safeguarding policy will be implemented, which may well mean that an expanded airport would object to wetland management and creation within the safeguarding zone and so it is potentially in conflict with the policy in the South-East Plan.

Ecological Reasons for Objection

The RSPB has a number of remaining ecological concerns with the applications. These can be summarised as:

Bird Hazard Management

The applicant has now provided supplementary information on their Bird Control Plan (BCP). However, the RSPB still has concerns regarding the efficacy of the BCP and its impacts on the SPA:

- The bird strike risk has not been assessed properly. The applicant has not surveyed for bird flightlines (both diurnal and nocturnal) or made any attempt to infer flightlines from survey data, and potential gull roosts on shingle were not surveyed. The applicant has therefore not been able to quantify the bird hazard risk accurately.
- As set out in the additional information, a constant bird control effort, scaring birds from fields adjacent to the airport and potentially further afield if there is an acute hazard, is, in the RSPB's opinion, likely to render parts of the SPA unattractive to birds due to disturbance.

The applicant states that the BCP will be a constantly evolving document and if monitoring shows an adverse effect on the SPA, mitigation will be implemented. This approach is not acceptable under the Habitats Regulations as at the time of determination of the applications, the competent authority needs to have certainty that there will not be an adverse effect on the integrity of the SPA, using the best environmental information available. The RSPB considers that the applications leave uncertainty as to the bird hazard risk and so to the measures that will be required by the BCP to control this risk. Therefore, the applicant cannot show that the BCP will not have an adverse effect on the SPA, or that any subsequent mitigation proposed will be adequate to remove the risk of this.

Disturbance to birds from air traffic

The applicant has provided supplementary information on the disturbance impact from aircraft noise. The applicant states that there is likely to be a moderate impact on the SPA to the east of the airfield. However, it is the RSPB's opinion that the applicants have failed to show that there would also not be a detrimental impact on the SPA to the south of the airfield due to increased frequency of peak noise events. In addition, there may be impacts on birds outside the SPA boundary, as well as to birds within the SPA. For example, golden plover and lapwing populations which form part of the proposed SPA revision citation may be disturbed whilst using the airfield and areas adjacent to the airfield. These potential indirect effects on the SPA citation populations have not been assessed, however. The RSPB is concerned that, despite the applicant's conclusion that part of the SPA will be impacted by noise, there is no certainty that the measures mentioned in the additional information to mitigate noise impacts will be implemented, or that they will be effective. This is a necessary requirement for the competent authority to conclude no adverse effect on the SPA.

Impacts of Development Control Safeguarding procedures

The applicant's BCP states that the local safeguarding policy must strive to avoid any increase in the bird hazard, and, where possible, reduce the existing bird hazard. However, the applicant has not supplied a Safeguarding policy. It is therefore impossible to judge, when the applicant implements the safeguarding policy, whether measures to reduce the existing hazard (e.g.:

objecting to wetland enhancement or management practices) will impact on the RSPB's and other SPA/SSSI landowners' ability to maintain the sites in favourable condition.

The BCP notes that the main bird hazard concerns include the creation of waterbodies, wetlands and reedbeds. The RSPB cannot see how it will be possible to maintain aerodrome safety and allow the conservation objectives of the SPA to be achieved, when the activities that the RSPB wishes to undertake to conserve and enhance the area are exactly those that the applicant will have to object to in order to minimise the bird hazard.

Air quality impacts on vegetated shingle

The level of nitrogen deposition currently experienced in the Dungeness area is at the critical threshold that could already be damaging vegetated shingle habitats. The RSPB remains concerned that the applicant relies on the current trend for declining baseline air pollution levels to mitigate impacts from the application, as this trend is not set to continue and is unenforceable. Even factoring in a decline in background pollution, nitrogen deposition rates as a result of the applications would be at a level at which an adverse effect might occur to SAC vegetated shingle habitat.

Direct loss of great crested newt habitat

The RSPB remains concerned that the great crested newt pond (known as Pond A) needs to be filled in to create the clear and graded area required by the Civil Aviation Authority (CAA). Though this is subject to a separate application, the cumulative impacts on the SAC of this and the applications for airport expansion need to be considered.

Other reasons for objection

The RSPB remains concerned about the impacts of airport expansion on both a global and local scale:

Climate change

Expansion of Lydd Airport would be accompanied by a significant increase in CO₂ emissions contributing to climate change, which is a significant threat to Dungeness and Romney Marsh's nature conservation interests, for instance through sea-level rise. This increase would contradict national, regional and local policies on climate change and sustainable development.

Impacts on the amenity and educational use of the RSPB Dungeness Reserve

Noise levels over the RSPB Dungeness reserve are predicted to reach levels at which community annoyance is experienced. In addition, the frequency of peak noise events is likely to erode the tranquil nature of the reserve. The RSPB is concerned that this will damage the visitor and educational experience and result in a decline in numbers from the 29,635 visitors and 835 students received in the financial year 06/07.

Conclusion

It is the RSPB's belief that despite further environmental information being supplied by the applicant, this is still insufficient to allow a full assessment of the impacts. Since this detail has not been provided, the applicant has failed to demonstrate that there will not be an adverse effect on the integrity of either the SPA or SAC. It is therefore the RSPB's opinion that Shepway District Council cannot consent these applications and fulfil its obligations under the Habitats Directive,

as outlined above. Further, the applications cannot be consented and comply with local and county planning policies.

The RSPB reserves the right to amend its position in the light of further information. In a previous conversation with Shepway District Council, the Council has told the RSPB that it will refer the applications to GO-SE if they depart from the local development plan, and that GO-SE has a 21 day period within which to call in the decision once its has been through full Council, irrespective. Please inform the RSPB if there is any intended change in this process.

The RSPB also understands that the applications will be determined at a meeting of the full Council on 30 January 2008, and that there is an opportunity to request to speak at that meeting. The RSPB would like to request to speak, and would put forward Chris Corrigan, the RSPB Regional Director for the South East. I would be grateful if you could confirm whether this is possible.

Yours sincerely



Alison Giacomelli
Conservation Officer

cc. Howard Ewing, GO-SE
Zaher Deir, London Ashford (Lydd) Airport
Rebecca Moberly, Natural England
Joseph Williamson, Environment Agency
Richard Moyse, Kent Wildlife Trust
Jamie Roberts, Buglife
Louise Barton, Lydd Airport Action Group
Rob Ryan, Keep the Marsh Special Alliance

ANNEX 1
Details of RSPB objection to Lydd Airport Applications

1 Introduction

- 1.1 The RSPB was set up in 1889. It is Europe's largest wildlife conservation organisation, with a membership of over 1 million. In Kent, there are over 32,000 RSPB members. The RSPB manages 202 nature reserves in the UK covering an area of 133,936 hectares.
- 1.2 The principal objective of the RSPB is the conservation of wild birds and their habitats. The RSPB therefore attaches great importance to all international, EU and national law, policy and guidance that assist in the attainment of this objective. The RSPB campaigns throughout the UK and in international fora for the development, strengthening and enforcement of such law and policy. In so doing, it also plays an active role in the domestic processes by which development proposals are scrutinised and considered, offering ornithological and other wider environmental expertise in particular in the public inquiry context.
- 1.3 The RSPB has a long history of involvement in the Dungeness area. The first RSPB wardens were appointed 102 years ago to protect breeding seabirds in the area, and the first part of the RSPB's reserve was acquired in 1931. Since then, the RSPB has increased its landholding, and now owns and manages 963 hectares of vegetated shingle, wet grassland, reedbed and open water habitat. The RSPB reserve forms a significant part of the 1031 hectare Dungeness National Nature Reserve (NNR), and as such is by definition one of the most important natural sites in the UK. The RSPB is committed to managing the reserve as part of the wider NNR, for its biodiversity, its internationally important geomorphology, and for the amenity and enjoyment of local people and visitors to the area. In the financial year 06/07, the RSPB reserve received 29,635 visitors, and provided educational services for 36 schools visits involving 835 students.
- 1.4 The RSPB **maintains its objection** to the applications for the reasons set out below. This Annex restates the conservation importance of the area, though this was set out in more detail in our letter to Shepway District Council dated 5 March 2007, before detailing the reasoning for the maintenance of the RSPB's objection. We set out the original reasons for our objection, and then discuss whether the additional information supplied by the applicant addresses our concerns. The reasons for objection are categorised under Legal and Policy, Ecological and Other headings. Further comment on the additional information is provided in Annex 2. Comments on the Statements to Inform the Appropriate Assessments are provided at Annex 3, and a consultants report on bird hazard management is at Annex 4.

2 Importance of the Site

- 2.1 The Dungeness peninsula is the largest shingle formation of its kind in Europe. The water bodies in the area attract internationally important numbers of birds. As a result, the Dungeness to Pett Level Special Protection Area (**the SPA**) has been designated

- under the EU Birds Directive¹. The SPA is designated for its breeding seabirds (little tern, common tern and Mediterranean gull) and wintering Bewick's swan and shoveler.
- 2.2 There have been changes to the bird interest in the Dungeness area and Natural England is now investigating extending the area and bird interest features of the SPA. The area now supports over 1% of the GB population of additional species listed on Annex 1 of the Birds Directive including breeding avocet and Sandwich tern; over wintering bittern, hen harrier, golden plover and ruff; and passage aquatic warbler. The open water habitat in the Dungeness area also supports an assemblage of over 20,000 waterbirds. The Appropriate Assessment (AA) required under the Conservation (Natural Habitats &c.) Regulations 1994 (**the Habitats Regulations**) should assess impacts on these additional interest features and geographic area.
- 2.3 The unique shingle formation has also resulted in the designation of Dungeness Special Area of Conservation (**the SAC**) under the EU Habitats Directive². The SAC is designated for its vegetated shingle habitat (annual vegetation of drift lines and perennial vegetation of stony banks) and for its great crested newt population.
- 2.4 Dungeness to Pett Levels has been proposed as a Ramsar site under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, but is not yet designated. The proposed Ramsar site is important for its bird populations (in addition to the SPA bird interest noted above, the Ramsar site supports a herd of 396 mute swans), plus its wetland plant and invertebrate communities, including Medicinal leech.
- 2.5 Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (**the SSSI**) includes areas of geomorphological interest, grazing marsh, freshwater wetlands, sand dunes, saltmarsh and vegetated shingle. The new SSSI is nationally important for its coastal geomorphology, coastal and wetland habitats, plant communities, water vole and invertebrate populations, and breeding, passage and wintering bird assemblages.

3 Legal and Policy Reasons for Objection

Environmental Impact Assessment

- 3.1 The supplementary information adds more detail regarding impacts of the applications along with cumulative impacts with other projects, on the SPA and SAC. However, there are still gaps in relation to impacts on the SSSI, particularly in relation to impacts of runway construction on geomorphology and invertebrates, and disturbance to breeding birds from aircraft noise. The applicant has still not proposed adequate mitigation to address disturbance issues from bird hazard management and aircraft noise, air pollution or cumulative impacts on great crested newts.
- 3.2 The RSPB therefore still believes that the EIA does not meet the requirements of an 'Environmental Statement' as defined in Regulation 2(1) of the EIA Regulations.

¹ EC Directive 79/409/EEC on the Conservation of Wild Birds

² Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

- 3.3 The RSPB previously raised serious concerns about the baseline against which impacts should be assessed. We are pleased that the applicant appears to have accepted this and the 'Statements to Inform' the AA's use the current level of 3,000 passengers per annum (**ppa**) as the baseline. The RSPB agrees that this should be the baseline used by the local planning authority in assessing the impacts of the applications.

The Birds Directive, the Habitats Directive and the Habitats Regulations

- 3.4 The applicant has now provided Statements to Inform the AA's that Shepway District Council must undertake under the terms of the Habitats Regulations. However, for the reasons set out in our ecological reasons for objection below, the applicant has failed to demonstrate that there will not be an adverse effect on the integrity of the SPA or the SAC. As it cannot be judged that there will not be an adverse effect, the further tests in the Habitats Regulations (as set out in our representation of 5 March 2007) must be met before the applications can be consented. In the RSPB's view, these tests are not met because there may well be less damaging alternative solutions, and we feel that there are not imperative reasons of overriding public interest that would override the impacts on internationally designated sites. Even if these tests were met, it would be difficult to provide compensatory habitat as this would entail provision of new wetlands that would be likely to increase the birdstrike risk in the airport's 13km safeguarding zone. Therefore, it is the RSPB's opinion that Shepway District Council cannot grant planning permission for the applications.

Planning Policy

- 3.5 The Kent and Medway Structure Plan (2006) and Shepway District Local Plan (2006) include policies supporting expansion at Lydd Airport subject to there being no material harm to/significant impact on internationally designated sites. As outlined below in our ecological reasons for objection, the RSPB's view is that the supplementary information does not demonstrate that there will be no material harm/significant impact on these interests. Therefore, the applications cannot be permitted and comply with these policies.
- 3.6 The South-East Plan (due to be adopted 2008) does not include a policy for expansion at Lydd Airport, but it does support wetland creation in the Romney Marsh area (Policy NRM4). The supplementary information on the safeguarding policy (Appendix 3.1 and 3.2, section 10.2) does not provide any detail on how the safeguarding policy will be implemented. It may require the airport to object to new wetland creation and/or management within its 13km safeguarding zone and so it is potentially in conflict with this policy in the South-East Plan.

4 Ecological Reasons for Objection

Introduction

- 4.1 In our representation of 5 March 2007, the RSPB identified a number of ecological concerns with the applications. These can be summarised as:
- Bird hazard management measures, incorporating safeguarding procedures
 - Disturbance to birds from air traffic
 - Air quality impacts on vegetated shingle
 - Direct loss of great crested newt habitat

4.2 Further detailed comment and questions on the Supplementary Information is found in Annex 2.

Bird Hazard Control Programme

4.3 WildWings Bird Management, expert in the field of bird strike hazard management, have provided a detailed critique of the applicant's Bird Control Programme (BCP) for the RSPB. This critique can be found at annex 4 of this submission. Detailed comments on the BCP and impacts on the SPA are presented in Annex 2 of this submission.

4.4 It is difficult to say with certainty what the impacts will be of the BCP presented as supplementary information in Appendices 3.1 and 3.2. This is because the BCP is not clear about the area that will be covered by active bird control measures, local land use agreements are not presented and no information is given on the area these will affect. In addition, the safeguarding policy does not indicate how management of the SPA/SSSI will be affected or how close to the airfield new waterbodies or reedbeds will be tolerated. This lack of clarity may be due to a lack of information about the movements of birds around and over the airport area, both diurnally, nocturnally and during migration periods, meaning that the applicant cannot put forward specific control plans, as the bird hazard cannot be fully ascertained on the present information.

4.5 Notwithstanding this lack of detail, it is clear that there is potential for an adverse effect on the birds for which the SPA and SSSI were designated. It is also likely that there will be adverse effects on the potential SPA extension and new citation species. The following is a summary of potential impacts:

- Local land use agreements are likely to reduce feeding habitat available for golden plover, lapwing, Bewick's swan and European white-fronted geese which form part of the SPA population.
- A constant bird control effort, scaring birds from fields adjacent to the airport and potentially further afield if there is an acute hazard, is likely to render parts of the SPA unattractive to birds due to disturbance.
- Local safeguarding policy – It is not clear how the policy will achieve the stated aim of reducing the existing bird hazard, but this may include restrictions on management of the existing SPA/SSSI and impact on the RSPB's and other SPA/SSSI landowners' ability to maintain the sites in favourable condition.

4.6 The applicant states that the BCP will be a constantly evolving document and if monitoring shows that there will be an adverse effect on the SPA, mitigation will be implemented. This approach is not acceptable under the Habitats Regulations as at the time of determination of the applications, the competent authority needs to know with certainty that there will not be an adverse effect on the integrity of the SPA, using the best environmental information available. The RSPB considers that the applications leave uncertainty as to the bird hazard risk and so to the measures that will be required by the BCP to control this risk. Therefore, the applicant cannot show that the BCP will not have an adverse effect on the SPA, or that any subsequent mitigation proposed will be adequate to remove the risk of this.

Disturbance to birds from air traffic

- 4.7 Detailed comments on the impact of disturbance from aircraft are presented in Annex 2 of this submission. However, in summary:
- The RSPB has concerns regarding the methodology used for the noise assessment, particularly the fleetmix that has been used as the baseline.
 - The RSPB agrees that the increase in noise level and frequency of peak noise events at the Lade Pit part of the SPA is likely to result in a moderate impact. We would add that the increase in frequency of peak noise events at the SPA to the south of the airfield could also potentially result in a detrimental impact. Impacts on birds outside the designated SPA area, for example golden plover and lapwing on the airfield and areas adjacent to the airfield, have not been assessed and could also be adversely affected.
 - There is a no certainty over what mitigation might be employed to successfully reduce noise impacts on the SPA.

Air quality impacts on vegetated shingle

- 4.8 The level of nitrogen deposition currently experienced in the Dungeness area is at the critical threshold that may already be damaging vegetated shingle habitats. Expansion at Lydd Airport would add significantly to the existing pollution problem.
- 4.9 The applicants revised modelling shows that nitrogen deposition over the vegetated shingle in the 500,000ppa scenario is likely to be 12.8-15.0kgN/ha/yr (paragraph 2.3.10 of Appendix 4.2). The critical threshold, below which significant harmful impacts do not occur, for vegetated shingle is 10-15kgN/ha/yr. Therefore, the level of deposition predicted is likely to have a significant detrimental impact on vegetated shingle.
- 4.10 The impacts of the nitrogen deposition from the applications should be considered cumulatively with background nitrogen deposition levels. The applicant's predicted level of nitrogen deposition factors in a reduction in background deposition of 2% per year. This is to take account of current trends for improving air quality due to improvements in (especially) vehicle technology. However, the Appropriate Assessment for the SE Plan notes that this trend is only expected to continue until about 2010-2015, after which increasing transport demand may cause these positive trends to reverse. Therefore, the RSPB remains concerned about the validity of the nitrogen deposition rates predicted by the applicant.
- 4.11 Even with a decline in background air pollution factored in, the overall deposition rates remain of concern for the vegetated shingle habitat. Therefore, declining levels of nitrogen deposition from other sources is not likely to fully mitigate the impacts of the applications, and even if it were, these reductions could not be relied upon because they could not be enforced.
- 4.12 Despite a predicted impact on vegetated shingle (which may include an adverse effect on the SAC), the applicant does not suggest any mitigation to reduce impacts. It is difficult to see what mitigation might be put in place, aside from reducing air and surface transport movements, which the applicant is unlikely to agree to.

- Direct loss of great crested newt habitat
- 4.13 In our original submission in March 2007, the RSPB raised concerns about cumulative impacts of the filling in of a part of the SAC (known in the applications as Pond A), required by the Civil Aviation Authority (CAA) for safety reasons. Whilst we understood that a separate application and AA would be completed for this action, we believed that the in-combination impacts of this with the airport expansion applications should be taken into account. This could lead to an adverse effect on the SAC.
- 4.14 The applicant's response to the RSPB's comments (Vol.1 of the supplementary information, p.59) states that Pond A is not proposed to be infilled. However, the loss of Pond A is mentioned in the Statement to Inform the AA of the terminal building, although not in the nearly identical document for the runway extension. No detail is given as to where a replacement great crested newt pond could be situated, and whether there is enough space to create this and the proposed replacement vegetated shingle habitat for loss of part of the SAC to the runway extension. This could have an adverse effect on the SAC.

5 Other reasons for objection

- Climate change
- 5.1 As stated in our original representation, dated 5 March 2007, expansion of Lydd Airport would be accompanied by a significant increase in CO₂ emissions contributing to climate change, which is a significant threat to Dungeness and Romney Marsh's nature conservation interests, for example through sea-level rise. This increase would contradict national, regional and local policies on climate change and sustainable development.
- 5.2 The applicant states (in the operational impacts mitigation strategy – Appendix 13) that a carbon management plan will be implemented, which will examine airfield buildings, ground operations, aircraft fleet, flight paths and landing/take off operations. Whilst this is a worthwhile action, it is difficult to see how this will have a significant impact on reducing carbon emissions, if numbers of flights themselves are not reduced. The RSPB also finds it disappointing that the list of operations that are to be targeted in a carbon management plan do not include encouraging travellers to arrive at the airport by public transport. Therefore the RSPB still does not believe that the applications are consistent with South-East Plan policy CC2 on Climate Change, as set out in our original objection letter.

- Impacts on the amenity and educational use of the RSPB Dungeness Reserve
- 5.3 The RSPB reserve received 29,635 visitors between the Mays of 06/07, and provided educational services for 36 schools visits involving 835 students. The RSPB is concerned that the applications will have a detrimental impact on the tranquillity of the reserve, damaging the visitor experience and hence reducing visitor numbers. The RSPB is also concerned that the increase in noise felt over the reserve will damage our educational provision.
- 5.4 Appendix 15.2, figure 3, shows that under the 500,000ppa upper parameter scenario, 57dB L_{Aeq 16hr} would be experienced on the reserve north of the Dungeness Road, and over a wider area of the reserve 51dB L_{Aeq 16hr} would be experienced. The RSPB's reading of

this information is that visitors to RSPB Dungeness could experience annoyance at noise as a result of the applications.

- 5.5 Furthermore, from the additional information, the peak noise levels from a BAe146 on a southerly departure result in noise contours over RSPB Dungeness of 66-90 dB L_{max}. A B737 on a southerly departure results in noise contours of 63-81 dB L_{max}. Both the overall level of noise and the peak noise events, occurring at a frequency of 22 per day under the 500,000ppa upper parameter (number of flights per day in the summer peak season) and 18 per day under the normal scenario, could result in a decrease in the attractiveness of the reserve to visitors and educational parties.

6 Conclusion

- 6.1 It is the RSPB's belief that despite further environmental information being supplied by the applicant, this is still insufficient to allow a full assessment of the impacts of the applications. Since this detail has not been provided, the applicant has failed to demonstrate that there will not be an adverse effect on the integrity of either the SPA or SAC. It is therefore the RSPB's opinion that Shepway District Council cannot consent these applications and fulfil its obligations under the Habitats Directive. Further, the applications cannot be consented and comply with local and county planning policies.

Annex 2

Detailed comments on the supplementary information

Appendix 5.2

Overwintering Bird Survey 2006/07

The RSPB has a number of remaining concerns with the surveys that have been carried out in support of the applications:

- Coverage – as stated in our letter of 5 March 2007, the RSPB raised considerable concerns about the exclusion of areas to the south of the airfield, by e-mail and telephone conversation with the applicant's consultants, and in our response to the scoping opinion in October 2005. Therefore, figure 11.2 is incorrect in reporting that areas of low ornithological importance were excluded after consultation with the RSPB.
- Poor presentation – the applicants have still failed to clearly show where birds are found and how they use the area. The overwintering survey 06/07 only covers part of the area within which the airfield sits, and misses out the areas that are internationally designated for their birds, and therefore by definition support important numbers. The applicant's consultants' reason for this, as explained to the RSPB, was that these areas are covered by the Wetland Bird Survey (a voluntary survey led by BTO/JNCC/RSPB/WWT), so the consultants would not survey them themselves. As this is the case, then the information presented should include a collation of both surveys presented together to enable a complete picture of bird use to be obtained.
- Flightlines – the Scoping Opinion states that information on bird flight paths and movements should be included in the ES, but this is still missing. The applicants state (in volume 1, p.16 of the supplementary information) that survey methodology as agreed with Natural England and RSPB did not include surveys of bird flight movement and such a study would not have significantly improved understanding of bird strike hazard at LAA. The RSPB did not agree that bird flight movements should not form part of the survey, and in fact stated the opposite in our response to the scoping opinion dated 5 October 2005. The RSPB believes that the bird strike risk cannot be assessed without knowing birds' movements, as birds are only at risk of striking aircraft when they are in the air. Without a proper assessment of risk, we cannot be certain that the Bird Control Plan will be successful, or whether changes will be needed that will adversely affect the SPA.
- Gull roosts – gulls will not have been systematically surveyed outside the areas covered by the applicants' own surveys. There is a large gull roost at Lade Sands and these birds may also use the unsurveyed shingle to the SW of the airport for loafing. The RSPB has pointed out to the applicants that this is a major omission in the assessment of bird strike risk, but this has not been acted upon, and no reason is given for the omission in Volume 1 of the supplementary information.

Conclusions that can be drawn from the 06/07 data

There are significant numbers of high bird strike risk species on the grid square containing the airfield, and in adjacent ones. Peak numbers of 181 lapwing and 260 black-headed gulls were found in the grid square containing the airfield, and 110 lapwing and 168 curlew in the grid square at the end of the runway. This would appear to present a significant hazard to aircraft (though no information on movements is presented, and these birds are only a hazard when in

the air). The information presented in the bird control plan seems to suggest that these birds would have to be discouraged from these areas to create a buffer round the airfield (see Appendix 3.1 & 3.2 BCP section 5.2).

Appendix 3.1 and 3.2

Predicted impacts of a Bird Hazard Control Programme on bird species of conservation importance near Lydd Airport

The RSPB has contracted WildWings Bird Management (**WWBM**), experts in bird hazard management, to provide a critique of the Bird Control Plans submitted by the applicants. This critique is submitted as annex 4 to this submission. However, a summary of the main points, and the RSPB's view on predicted impacts on the SPA is presented below.

Bird Control Plan

It is the view of WWBM that Lydd Airport is in an area of high bird strike risk. Under the CAA safeguarding guidelines³, any developments that would allow the occurrence of wildlife resources of the extent currently found within 13 km of an airport would be grounds for objection through safeguarding procedures, on the basis of threat to air safety. WWBM therefore find it remarkable that such an airport development is being considered in an area where this abundance of wildlife already exists and receives legal protection, especially as the birds that are numerous in the area include most of the species that are perceived as especially hazardous to air safety in the UK.

The Bird Control Plan (BCP) states that the site specific local hazards that require special attention are wildfowl, particularly Bewick's swans, and golden plovers. This underestimates the bird hazard. Bewick's swans are a small component of the waterbird assemblage in terms of their (albeit internationally important) numbers. The applicant's bird surveys (Chapter 11 of original ES) show that mute swans are found in greater numbers close to the airfield. The total waterbird assemblage in the Dungeness, Romney Marsh and Rye Bay area is over 37,000 individuals. The applicant's surveys also show that lapwing numbers are much higher than golden plovers, and hence pose a bigger hazard. The RSPB contends that this lack of understanding of the hazards does not give confidence that the BCP will reduce the risk of bird strike effectively.

WWBM considers that the BCP lacks detail and omits some important considerations:

- The phrasing used in the BCP indicates a lack of commitment from the applicants to a dedicated, self-contained, fully funded and equipped bird control team.
- The proposal for grassland management is likely to attract grazing waterfowl, particularly geese, having the opposite effect to that intended.
- Commitment is needed to net all waterbodies on the airfield, and to include nesting deterrents on the roofs of buildings.
- Provision of off-airfield bird management should include a budget for compensation for landowners who are asked to change their land management practices in the interests of flight safety.

³ CAP722 Birdstrike risk management for aerodromes. CAA Safety Regulation Group

- In an area of such high bird density and with an unknown, but most probably high, amount of spring and autumn migration and of local nocturnal movements, at unknown altitudes, the proposed surveillance, based on direct observation, is inadequate. In this environment, a bird detecting radar should be an integral part of the bird hazard control equipment, used to identify hazardous movements throughout the year.
- The BHCP does not take into account the current goose population in the area, involving over 1000 birds of three species.
- Clear guidance is needed on what aspects of RSPB reserve management comes under the terms of safeguarding. It is not clear from the information presented what works would be captured, and how and to whom such work should be reported.

Predicted impacts on the SPA

The lack of detail in the BCP makes it difficult to determine impacts on the SPA, specifically:

- Area over which active bird control will be practised – section 5.2 of the BCP states that the Bird Control Team (BCT) will operate beyond the airfield to deal with acute hazards, and that the BCT will look for hazardous birds in fields adjacent to the airfield creating a buffer ‘several hundred metres wide’.
- Area over which agreements with local landowners will be sought and what these might entail.
- There is no detail on what a local safeguarding policy would entail, or whether the management of existing waterbodies will be affected. Section 10.2 states that creation of new waterbodies should be located away from the airfield – but does not state how far away this would have to be – eg: beyond 13km.

Four aspects of the BCP could potentially affect birds for which the SPA, and proposed SPA extensions, are designated. These aspects are considered below:

Long Grass Management Programme

Table 2 of Appendix 3.1 and 3.2 states that the long grass management programme will make the airfield less attractive to golden plovers. This policy would also deter lapwings, which are also to be added to the SPA citation as part of the assemblage of waterbirds. Given the amount, and widespread occurrence, of grassland on Romney Marsh, the RSPB’s view is that exclusion from the site is very unlikely to have any impact on the species.

Local Land Use Agreements

Table 2 states that local land use agreements may reduce adjacent habitat value for golden plover. It is not clear over what area land use agreements will be implemented, but this issue could become significant. Agricultural management designed to deter golden plovers will also affect lapwings. Lapwings are also a priority bird strike species⁴, are found in large flocks near to the airfield (as demonstrated by the applicant’s wintering bird survey), and are part of the proposed assemblage of waterbirds to be added to the SPA citation.

Land use agreements controlling agricultural practises may also impact Bewick’s and mute swans, and European white-fronted geese. Bewick’s swans are on the existing SPA citation, European white-fronted geese are to be added to the assemblage of birds on a revised SPA citation, and mute swans are likely to be included in the proposed Ramsar site. The applicant’s

⁴ CAP680 Aerodrome bird control. CAA Safety Regulation Group

bird surveys in 04/05 and 05/06 recorded Bewick's swans and large herds of mute swans. The applicants note (in 11.4.23 of the original ES) that the swans move widely throughout the area and occupy a variety of roost sites. This could necessitate land use agreements to similarly be applied widely.

Active Bird Control Instructions

The applicant predicts (in the Executive Summary to Appendix 3.1 and 3.2) a minor impact from disturbance to Bewick's swans and waterbird flocks using ARC pit, part of the SPA to the south of the airfield. However, this view derives from Table 1, which only considers bird control activities at the airport, rather than any off-airfield activities. Therefore, the impacts may be greater than predicted by the applicant.

The applicant states in the Executive Summary that noise is not expected to increase, and with judicious use, noise disturbance could be reduced. However, they also state (in section 3.2.6 of Appendices 3.1 and 3.2) that whilst the noise level will not increase, the frequency of scaring will increase. The BCP states that when aircraft movements are greater than 1 per hour, the Bird Control Team (BCT) will have to patrol constantly. Therefore, there seems to be a discrepancy between the BCP and the impacts predicted by the applicants.

A constant bird control effort, scaring birds from fields adjacent to the airport and potentially further afield if there is an acute hazard, is likely to render parts of the SPA unattractive to birds due to disturbance. It is not possible to say how much of the SPA will be affected because the applicants have not been clear about the width of the bird-free buffer that will be created around the airfield. Nevertheless, using the precautionary principle, the applicants have failed to demonstrate that there will not be an adverse impact on the integrity of the SPA.

Local Safeguarding Policy

A Safeguarding policy has not been supplied, therefore it is difficult to determine what the impacts of the implementation of this on the SPA will be. The first paragraph of section 10.2 of the BCP states that the local safeguarding policy must strive to avoid any increase in the bird hazard, and, where possible, reduce existing bird hazard. It is not clear how the existing hazard will be reduced. The applicant also states (in the last paragraph of section 4.4 in Appendices 3.1 and 3.2) that the maintenance and creation of new reedbed and waterbodies need to take account of local safeguarding policy. It is not clear what this means for the maintenance of habitats, or whether this applies to both existing and new habitats. The applicants **must** supply a Safeguarding policy so that it can be judged whether measures to reduce the existing hazard will impact on the RSPB's and other SPA/SSSI landowners' ability to maintain the sites in favourable condition. Without it, it is not possible to ascertain that this will not contribute to an adverse effect on the integrity of the SPA.

Section 10.2 of the BCP notes that the main bird hazard concerns include creation of waterbodies, wetlands and reedbeds. These are activities that the RSPB undertakes on its reserve and outside it in partnership with others, for example aggregates extraction companies. These activities support the SPA and SSSI and enhance the interests of those sites. For example, the RSPB's reedbed creation activities resulted in marsh harriers breeding on the reserve for the first time in 2007. Despite the applicant's assurances that a local safeguarding policy would maintain aerodrome safety whilst allowing conservation objectives to be achieved, the RSPB cannot see how this is

possible when the activities that we wish to undertake to conserve and enhance the area are exactly those that the applicants will have to object to in order to minimise the bird hazard.

Impacts on specific SPA bird species

The applicants have considered the impacts of the BCP on particular species for which the SPA is designated in Table 1 of Appendix 3.1 and 3.2. However, all of their comments relate to very limited on-airfield activities and do not take into account any active intervention on land within the 13 km safeguarding zone, or specific legal requirements they may place on landowners to reduce the bird hazard. The RSPB's experience at the Rhoose International Airport at Cardiff, has been that the airport management required the Council to drain an urban pond over three miles from the airfield to prevent ducks, swans and geese from using it. It is not clear that the applicants would not have to pursue similar action at Dungeness, should the bird hazard demand it in the future.

Shoveler – The applicant claims Coventry, Humberside and Heathrow Airports show no problems for the species. Coventry and Humberside are each over 6 miles from the nearest SPA, and so bird scaring noise will be irrelevant in these cases. Heathrow is closer to the SPA, but the urban context and continual noise from aircraft will again render noise from bird scaring irrelevant. The other duck in the SPA assemblage are not commented on in Table 1 but should have been.

Bewick's swan – The RSPB agrees with the applicant that swans at Walland Marsh would not be disturbed by bird control activities at the airport, but they may be at ARC pit (part of the SPA). Additionally, Bewick's swans are found outside the SPA. The applicant's 05/06 bird survey recorded Bewick's swans at Cockle Bridge, which is under the departing flightpath, and so an area potentially impacted by bird scaring.

Mediterranean gull – The RSPB agrees that Mediterranean gulls are unlikely to be affected by bird control practices on or adjacent to the airfield. However, as Mediterranean gulls are likely to be within flocks of black-headed gull, there is a risk that they will be shot by the BCT (section 6.5 of the BCP) if mistakenly identified, or that these birds will be subject to bird strikes. The applicant has not demonstrated that any such impact will be *de minimus*.

Tern species – Little terns do not and have not bred in the Dungeness part of the SPA, so are highly unlikely to be affected by the BCP. Common and Sandwich terns nest on Burrowes Pit currently or in the recent past, and so are at a sufficient distance from the airfield not to be affected by bird scaring, unless the BCT needs to react to an acute hazard such as a starling roost in the vicinity.

Golden plover – Given the amount of grassland on Romney Marsh, exclusion from the airfield is unlikely to affect this species. However, local land use agreements will need to be put in place to discourage this species, which may be significant. These comments similarly apply to lapwings, which form a major component of the potential SPA assemblage, and so should be included in the consideration of how the BCP may affect the integrity of the SPA.

Bittern – Starling roosts in reedbeds may become an issue for the applicants, particularly in autumn. Dispersal of starling roosts may have a significant impact on bittern, which is also a

reedbed species. Restrictions on reedbed creation as part of the Safeguarding policy may also affect this species.

Appendix 6.1 and 6.2

Predicted impacts of aircraft noise on birds of conservation importance near Lydd Airport

Summary of RSPB views

- The RSPB has concerns regarding the methodology used for the noise assessment, particularly the fleetmix that has been used as the baseline.
- The RSPB agrees that the increase in noise level and frequency of peak noise events at the Lade Pit part of the SPA is likely to result in a moderate impact. We would add that the increase in frequency of peak noise events at the SPA to the south of the airfield could potentially result in a detrimental impact. Impacts on birds outside the designated SPA area, for example golden plover and lapwing on the airfield and areas adjacent to the airfield, have not been assessed and could also be adversely affected.
- There is a no certainty over what mitigation might be employed to successfully reduce noise impacts on the SPA.

Concerns with methodology:

- LA_{max} is used in the assessment of noise impacts on birds, which relates to departing aircraft as these are noisier than arriving aircraft. However, arriving aircraft also create noise, so the noise level from arriving aircraft should be stated, and in assessing the frequency of disturbance events, both departing and arriving aircraft should be considered.
- The RSPB questions the baseline that has been used for the assessment. Paragraph 2.3 states that the baseline used is the noise produced by a BAe146, and paragraph 4.1.4 states that the SPA currently experiences peak noise levels of one BAe146 movement. However, the breakdown of current fleetmix presented in Appendix 15.2 (Community noise impacts) shows that there are only 0.219 movements of BAe146 aircraft per day, i.e. one per five days.
- Paragraph 2.3 states that a trial flight of an old B737-300 presents a worst-case scenario as it was an old model. However, it is unlikely that this aircraft was fully laden, so unlikely that it was as noisy as a fully loaded aircraft. Are there data that look at how different engines react to different payloads that could occur, and if so, the data should be shown/summarised.
- The RSPB has seen draft comments from aviation consultant, Malcolm Spaven, contracted by the Lydd Airport Action Group (LAAG). These question the validity of flightpaths presented in the supplementary information. The RSPB recommends that Shepway District Council investigate the flightpaths presented.
- The increase in training and private flights (General Aviation) under both expansion scenarios is not considered.

Case studies

The case studies presented show that there are sites that support important bird numbers next, or near, to airports. The RSPB accepts that there is not a simple relationship between aircraft and birds and that birds do exist close to or fairly near to airfields. However, the case studies presented provide no evidence as to the impact on bird populations, or lack of it. For example, there is no analysis to show where the species are found within the SPAs in question, what noise levels occur in these locations, and how/if birds are affected. A simple list of birds and sites, as presented in Appendix 2 of Appendices 6.1 and 6.2, tells us nothing.

Whilst the case studies demonstrate that birds can be found near airports, they do not provide information on whether those birds are impacted. Even if birds are still present, this does not necessarily mean that they are not affected by the noise - their behaviour may change (they may be alert and not feeding when the noise stimulus is present), and there could potentially be effects on body-condition and/or breeding productivity if disturbance was sustained.

It cannot be inferred from the case studies that airports with significantly heavier air traffic than LAA do not significantly affect the bird populations present (as asserted in the penultimate paragraph of the executive summary of Appendix 6.1 and 6.2). We do not have information on whether these sites would hold larger numbers of birds, or a greater range of species, if the airport were not present or had lower numbers of air traffic movements.

Assessment of noise impact

Paragraphs 4.1.1 and 4.1.2 present a number of caveats to the effect that we cannot be certain as to the impact of aircraft noise on birds due to uncertainties and variability in sites, species, aircraft and weather. The RSPB would agree with these comments. However, despite the statement in paragraph 4.1.1 that the impact assessment was mindful of these uncertainties, they do not seem to have been taken into account when reaching a conclusion as to whether there will be an impact on bird populations.

Noise impact at 300,000ppa

Section 4.1 presents a confused picture of the impacts on the SPA. Paragraph 4.1.4 states that the SPA at Lade Pit currently experiences 1 BAe146 movement, which rises to four movements per day at 300,000ppa. Table 3 of the statement to inform the AA of the SPA states that for the 300,000ppa scenario, the fleetmix is 2 BAe146 movements, 2 Dash8 and 4 Saab340. Therefore, the RSPB presumes that the 4 movements referred to in paragraph 4.1.4 is 4 departures of smaller jets. However, the report does not say whether all types of small jets produce the same peak noise levels or what noise levels result from arriving aircraft.

The SPA at Lade Pit is subject to peak noise levels of between 72 and 81 dB(A) (see Appendix 6.1 and 6.2, Table 1). Under the 300,000ppa scenario the frequency of these peak noise levels from jet aircraft will increase. In addition, there will be an increase in General Aviation movements from 69 to 103 (according to Appendix 15.1 on community noise). The increase in frequency of jet aircraft is likely to result in a disturbance impact on Lade Pit, and therefore the RSPB agrees with the conclusion (on p.3 of Appendix 6.1) that there will be a moderate impact of the applications on the SPA.

The applicant states that the SPA to the south of the airfield already experiences peak noise levels of up to 90 dB(A) from one BAe149 movement, and, therefore, that the development scenario will not alter the peak level noise experienced at this part of the SPA (paragraph 4.1.5). The applicant

goes on (in paragraph 4.1.7) to say that the frequency of peak noise events will be 4 movements per day of larger jet aircraft. Table 1 (p.7 of Appendix 6.1) shows that on a southerly departure, BAe146 movements have a larger potential noise impact on the SPA. Therefore, when assessing the frequency of impact, both smaller and larger jets should be considered. The RSPB's view is that the increase in frequency from 1 to 12 air traffic movements has the potential to detrimentally impact the SPA to the south of the airfield, in addition to Lade Pit.

Noise impact at 500,000ppa

Lade Pit - There is a drafting mistake in Appendix 6.2, paragraph 4.1.4, as this refers to aircraft movements at 300,000ppa not 500,000ppa. However, due to the increase in aircraft movements under the 500,000ppa scenario, the frequency of peak noise levels experienced at Lade Pit will increase, which may in turn increase disturbance to SPA birds.

SPA to south of airfield - Paragraph 4.1.7 of Appendix 6.2 states that the additional frequency of peak noise will be 8 movements of larger jet aircraft. As small jets would create a larger peak noise event to the SPA ('SPA 2') on a southerly departure, both small and large jets should be considered. The RSPB's view is that this increase in frequency of peak noise events has the potential to detrimentally impact the SPA to the south of the airfield.

Impact on the SPA of both scenarios

The applicant states, in paragraph 4.1.7 of Appendices 6.1 and 6.2, that research and case studies suggest that bird populations are able to habituate to much higher frequencies of single event disturbance than will be experienced at an expanded Lydd Airport. However, the research and case studies presented do not mention frequency of noise events or evidence of habituation.

Table 3 lists the species of conservation interest at the SPA and their susceptibility to aircraft noise. However, there have been no bespoke studies of these species' susceptibility to aircraft noise, therefore, the conclusions in Table 3 are simply a supposition. Statements in Table 3 to the effect that species are known to be present at other SPAs and other bird reserves near to airports should be supported by information regarding where on the SPA the species are found, how far from the airport, what noise levels are they subject to, and what impacts have been observed. Where the applicants state that the species are unlikely to be deterred by increased noise levels, they do not present any evidence that an increase frequency of peak noise will not detrimentally affect these species.

Table 3 notes that lapwing and golden plover form large flocks and appear on and near the airport. These species are part of the proposed assemblage of species under a revised SPA. Therefore, SPA species may be affected by noise outside the designated SPA area.

Table 3 states that common and Sandwich tern will not receive increased peak noise levels at Burrowes Pit. Whilst the peak noise level may not increase, the frequency of air traffic movements will increase from 1 to 12 or 18, for the 300,00ppa and 500,000ppa scenarios respectively. This increase in frequency may decrease the attractiveness of the SPA for breeding terns.

In the last paragraph of section 4.1 (on p. 11), the applicants state that geese and ducks for which the SPA is designated are known to habituate to higher levels of noise than predicted at LAA. However, this is not demonstrated by the literature search (section 3.1). The statement appears to

come from the erroneous assumption that SPAs next to airports still have waterbirds, and that this means that these birds are not impacted.

Impacts on SSSI birds

Although the supplementary information simply focuses on impacts on the SPA, there are further SSSI bird interests that could potentially be affected. The Dungeness part of the SSSI supports breeding populations of gadwall, garganey, shoveler, pochard, tufted duck, avocet, black-headed gull and common tern contributing to the nationally important populations of the SSSI. An increased frequency of noise events could lead to population impacts on these species by disturbing adult birds on nests, so increasing the risk of chick and egg predation.

Mitigation

Section 4.2 contains 'recommendations for mitigation'. There does not seem to be a clear commitment to implementing mitigation measures to reduce the impact on birds. Paragraph 4.2.2 states that 'consideration should be given to' routing smaller jets over Lydd so they do not fly over the SPA. There should be a clear commitment to this mitigation measure to reduce impacts on the SPA. However, this will clearly increase impacts on the community in Lydd.

Paragraph 4.2.3 states that some noise impact derives from procedures for taxiing and engine run-up. This source of noise was not considered in the assessment of impacts, and therefore is an omission. The applicants state that a management programme for minimising ground noise should be established. However, the report does not consider what such a management programme would look like and what impact would it have.

The statement in paragraph 4.2.4 that monitoring will be put in place to demonstrate whether any SPA species are being negatively affected, and that management intervention should be implemented to reverse any negative affects seen, is unacceptable under the Habitats Regulations. It is the applicant's responsibility at the time of determination, to demonstrate that there will not be an adverse effect on the integrity of the SPA. If there is any uncertainty, mitigation measures must be secured that will remove these potential effects with certainty.

The table at paragraph 4.2.5 demonstrates that some mitigation measures may not be able to be implemented. The noise levels of the aircraft fleet wishing to be based at the site will depend on commercial interest, therefore, if airlines declined to conform to noise performance levels, this measure would not be implemented. Departure routing depends on dialogue with stakeholders, and the applicants have not demonstrated that they would be able to reconcile community and SPA interests.

Annex 3

Comments on the Statements to Inform the Appropriate Assessment

Predicted impacts on the Dungeness to Pett Level Special Protection Area

Comments relate to the impacts from both the runway extension and terminal building unless otherwise stated.

General Points

Following on from the notification of the Dungeness, Romney Marsh and Rye Bay SSSI, Natural England is working on the designation of an extended Dungeness to Pett Level SPA. The Appropriate Assessment should consider the effects of the applications on both the existing SPA and the additional interest features and geographic extent that Natural England are in the process of designating. The applicants state that they will only consider impacts on the geographical area of the existing SPA because the additional areas are further away than the current SPA (section 4.2.2). The RSPB understands this to be incorrect. The potential SPA extensions include the northern Lade Pit, around 600m from the airfield boundary.

The test in Regulation 48 of the Habitats Regulations is to determine whether the proposal would not adversely affect the SPA, i.e. it is a negative test, not a positive one. Therefore, it is not for Shepway District Council to assess whether the proposal would adversely affect the SPA (as stated in 1.4.2), but to determine whether it has been shown that it will not have an adverse impact.

The test in Regulation 49 of the Habitats Regulations regarding alternatives is not just concerned with mitigation and in finding alternative less damaging ways of completing the project (as stated in 1.4.3). It also includes alternative solutions to the proposal, which may be projects elsewhere, or different ways of meeting the project need, including the 'do nothing' alternative.

Impacts during construction

Habitat loss due to footprint of terminal building and runway – the RSPB agrees that the direct habitat loss due to buildings and the runway will not have a significant effect on the birds for which the SPA/potential SPA are designated.

Noise disturbance from terminal building construction – The applicants state (paragraph 5.2.7) that noise levels heard at 500m from the terminal building construction site will not be significant. The RSPB agrees that as the SPA is over 1km from the construction site, birds within the SPA boundary are unlikely to be affected by construction noise. However, the applicant's bird surveys (Chapter 11 of original ES) show that birds for which the potential SPA is to be designated (golden plover and lapwing) use areas outside the designated site boundary, and so may be affected by noise disturbance during construction. Paragraph 5.2.8 presents a contrary view, but this is because the applicants have only considered the existing SPA interest.

Noise disturbance from runway construction – the applicants suggest that noise levels 500m from the construction site are not significant. The SPA and potential extension at Lade Pit is just over 500m from the construction site. Therefore, the SPA is just on the threshold of experiencing

significant noise. Using the precautionary principle, an impact should be assumed and mitigation proposed.

Water quality impacts – the applicants note (paragraph 5.2.13) that there will be an increase in surface run-off volumes and rates of discharge, but the existing sewage and water systems are considered adequate to deal with any construction requirements. Nevertheless, the applicants propose mitigation measures to combat potential emissions to watercourses. The RSPB recommends that the Environment Agency's view is taken on the adequacy of existing sewage and water systems, and on the adequacy of the proposed mitigation measures.

Dust – The RSPB agrees that with appropriate mitigation, impacts of dust during construction are not likely to have an adverse effect on the integrity of the SPA. However, a detailed Construction Management Plan should be submitted by the applicants and agreed by the local planning authority.

Lighting – The RSPB agrees that provided directional lighting is used, designed to prevent light spillage, there is unlikely to be an adverse effect on the integrity of the SPA from lighting.

Impacts during operation

Water quality impacts – The applicants state (paragraph 5.3.2) that mitigation measures described for the construction phase will be sufficient to also mitigate for impacts during operation. In the RSPB's view, these mitigation measures need to be made clear for the operational phase, i.e. which measures are appropriate during operation, and whether they are sufficient to avoid water pollution events. The RSPB recommends that the Environment Agency's views and agreement on a mitigation plan for water quality impacts are sought.

Lighting - The RSPB agrees that provided directional lighting is used designed to prevent light spillage, there is unlikely to be an adverse effect on the integrity of the SPA from lighting.

Noise disturbance – The RSPB's detailed comments on noise disturbance from aircraft movements are set out above in paragraph 4.7 of Annex I and in Annex 2. However, in summary, the RSPB concludes that the applicants have failed to show that there will not be an adverse effect on the integrity of the SPA from noise disturbance at both the 300,000ppa and 500,000ppa levels. In Appendices 6.1 and 6.2 of the supplementary information, the applicants conclude that there will be a moderate impact on birds using Lade Pit from aircraft noise. The RSPB agrees that there will be impacts to Lade Pit, however, we also feel that the increase in frequency of peak noise events on the SPA to the south of the airfield could also have impacts that contribute to an adverse impact on integrity.

The Statements to Inform (paragraph 5.3.9 of Chapter 1 and paragraph 5.3.5 of Chapter 3) suggest that aircraft, and specifically jet aircraft will not fly over the SPA. However, smaller jets are predicted to fly over the SPA to the south of the airfield, and Appendices 6.1 and 6.2 show that smaller jets generate a greater peak noise impact on the southerly part of the SPA than larger jets. The increase in frequency of peak noise events at the SPA to the south of the airfield could potentially result in a detrimental impact. Impacts on birds outside the designated SPA area, for example golden plover and lapwing on the airfield and areas adjacent to the airfield, have not been assessed, but could be significant.

Figure 10 in Appendix 6.2, shows the 81 dB(A) L_{max} contour (the applicants state that a particular disturbance response is seen above 80 dB(A)) for southerly departing BAe146 aircraft overlaps with 100ha of the existing SPA (RSPB calculation), which is 6.8% of the total area. This impact

added to the impact at Lade Pit indicates that over 6.8% of the habitat would be affected, which, according to Table 5, is an impact of 'very high' significance.

Air quality impacts – The RSPB agrees that nutrient deposition is unlikely to have a significant adverse effect on the integrity of the SPA. Whilst the RSPB believes that nutrient deposition could adversely affect the SAC vegetated shingle community, the SPA bird interest does not depend on vegetated shingle for feeding opportunities, so will not be affected.

Disturbance from bird hazard management – though this is dismissed in the Statements to Inform the AA's, the applicants do predict a minor impact on Bewick's swans and flocks of waterbirds using the ARC pit to the south of the airfield in Appendices 3.1 and 3.2. The RSPB has commented in detail on the applicant's bird hazard management measures in para.4.3-4.6 of Annex 1 and in Annex 2. However, in summary the RSPB's view is that whilst the Bird Control Plan (BCP) lacks the detail to enable a full assessment of impacts on the SPA, there is potential for an adverse impact on the integrity for the following reasons:

- The applicant has not demonstrated that local land use agreements will not have an adverse impact on feeding habitat for golden plover, lapwing, Bewick's swan and European white-fronted geese.
- A constant bird control effort, scaring birds from fields adjacent to the airport and potentially further afield if there is an acute hazard, is likely to render parts of the SPA unattractive to birds due to disturbance. It is not possible to say how much of the SPA will be affected because the applicants have not been clear about the width of the bird-free buffer that will be created around the airfield. Nevertheless, using the precautionary principle, the applicants have failed to demonstrate that there will not be an adverse impact on the integrity of the SPA.
- Local safeguarding policy - The first paragraph of section 10.2 of the BCP states that the local safeguarding policy must strive to avoid any increase in the bird hazard, and, where possible, reduce existing bird hazard. It is not clear how the existing hazard will be reduced. The applicants **must** supply a Safeguarding policy so that it can be judged whether measures to reduce the existing hazard will impact on the RSPB's and other SPA landowners' ability to maintain the site in favourable condition. Paragraph 2.5 of the Executive Summary (Statement to inform the AA of the terminal building) states that it is not likely that planning applications for nature reserves would be objected to unless they could be shown to significantly increase the bird strike risk. Valuable habitat creation may well attract strike-hazard species; for instance, reedbed sites for bittern are likely to attract starling roosts, breeding islands for terns may encourage gull nests/roosts, and open water areas will attract wildfowl.

Bird strike – The loss of individual birds to bird strike is not dealt with in the applicant's Statements to Inform, but should be considered in the AA. Loss of individual birds to bird strike is not likely to have an impact on population levels, and therefore on the integrity of the SPA, unless the species is present in very low numbers and/or is slow reproducing. The population of Mediterranean gull within the SPA is 21 pairs, representing 19.4% of the GB population. The applicants note that this species is a bird strike risk (table 1 of Appendices 3.1 and 3.2), therefore loss of birds from a small breeding population could be significant. Bewick's swan is a bird strike risk species, but with a population of 127 individuals, bird strike alone is not likely to have a significant impact on the population. Similarly, golden plovers and species that form part of the waterbird assemblage are bird strike species, but form part of sufficiently large populations that loss of individual birds is not likely to have a significant effect.

Cumulative Impacts

Noise disturbance - There are likely to be cumulative noise disturbance impacts on the SPA from the increase in aircraft movements due to the terminal building and runway extension, the increased frequency and geographic coverage of bird hazard management, and gravel extraction. Aggregates extraction, as shown on figure 4, is at a sufficient distance not to cause disturbance to the existing SPA, but it is adjacent to the potential SPA. Therefore, there is potential for a cumulative impact on the potential SPA. This means that noise disturbance will affect Lade Pit, the SPA extension at Lade Pit, the SPA that forms part of the RSPB reserve to the south of the airfield, and the SPA extension at Scotney Pit.

Visual disturbance – This will affect the same areas as noise disturbance, plus there will be a cumulative impact from Little Cheyne Court wind farm. The applicant misunderstands the impact from the wind farm as set out in paragraph 6.3.14. Although the wind farm will be situated away from the existing SPA, SPA birds feed in the area, and so there is a potential impact from both disturbance and collision risk. Mitigation for these impacts involves agreements with local landowners to plant specific crops in different areas, designed to attract birds away from the wind farm area.

Bird strike – There may be a cumulative impact from loss of Bewick's swans to bird strike and collision with turbines at Little Cheyne Court wind farm. However, mitigation for collision risk at the wind farm involves agreements with landowners to plant crops to attract birds away from the turbine array.

Emissions to water and air – the RSPB agrees that cumulative water and air quality impacts are likely to be able to be dealt with by appropriate environmental management plans.

Mitigation

Mitigatory measures are necessary to deal with water quality, dust and lighting during construction, and water quality and lighting after construction. Mitigation is also needed for noise and visual disturbance from aircraft movements, bird hazard management, bird strike and runway construction. The applicants suggest measures that will reduce water quality, dust and lighting impacts. The RSPB recommends that the Environment Agency's views and agreement be sought on measures to deal with water quality impacts.

Bird Control Programme – The RSPB disagrees with the applicant's conclusion that a correctly implemented BCP is likely to have minor or insignificant impacts on the SPA. As set out above, this is due to uncertainty over the bird control effort, land use agreements and safeguarding policy. The applicant proposes (in section 7.1) that monitoring will be undertaken and if it can be shown that SPA species are being affected by bird control methods, then management intervention should be implemented to reverse this. This approach does not comply with the Habitats Regulations. It indicates that there is a risk of impact, and so any mitigatory measures should be implemented from the outset otherwise there is a risk of an adverse effect on the integrity of the SPA.

Similarly, in paragraph 2.4 of the Executive Summary, the applicants suggest that an agreed BCP is subject to a management agreement so that any proposed land use change or bird scaring activity can be evaluated and/or monitored, and where necessary changes made to the BCP. This suggests that the BCP may need to be altered if it is found not to be having the desired effect in reducing the bird strike hazard. However, the competent authority needs to be certain before any consent is given that the BCP will not lead to adverse effects on the integrity of the SPA. This means that the current BCP has to be robust and certain to reduce the bird hazard. The RSPB's view is that the BCP is not robust, and it is not clear that there will not be an adverse impact on the integrity of the SPA.

Bird strike – though the applicant does not mention it, mitigation for bird strike will potentially be the implementation of a BCP, depending on its efficacy.

Aircraft noise – Noise from air traffic movements is likely to have an impact on the SPA alone and cumulatively with the disturbance from the implementation of the BCP. As discussed in para 4.7 of Annex 1 and in Annex 2 of this submission, the measures for noise mitigation proposed by the applicants are likely to be inadequate or not able to be implemented. There is no certainty that sufficient mitigation could be put in place to mitigate the predicted impacts, as the applicants have not been able to estimate how much these mitigation measures might decrease noise levels. The RSPB disagrees with the conclusion that birds are likely to habituate to disturbance. Insufficient evidence is presented, or known, as to the effects of aircraft noise on the SPA species and whether they are likely to habituate or not.

As noted above, whilst monitoring is valuable, it is not mitigation. If there is a risk of impact, mitigation measures that would give certainty of removal of effect, should be introduced from the outset.

Conclusion

The RSPB concludes that the applicant has failed to show that there will not be an adverse impact on the integrity of the SPA, and potential SPA extension, due to disturbance from the BCP, aircraft noise and runway construction alone, but also in combination with aggregates extraction activities. The Conservation Objectives for the SPA (paragraph 4.4.3) state that there should be no significant displacement from human disturbance (human disturbance absent or at a low level). An expanded airport will clearly not meet this objective. The applicants have not suggested sufficient measures to mitigate their impacts, therefore, it cannot be shown that there will not be an adverse effect on the integrity of the SPA.

Predicted impacts on the Dungeness Special Area of Conservation

Comments relate to both the terminal building and runway unless otherwise stated.

Construction Impacts

Water quality – Spills and surface run-off could impact on both great crested newt and vegetated shingle if there is hydrological connectivity. As there is a risk of an impact, the precautionary principle indicates that mitigation should be put in place. The applicants mention a Construction Environmental Management Plan, with some actions outlined in the runway extension chapter. The RSPB recommends that the Environment Agency's views and agreement on such a Management Plan be sought.

Dust – Could impact on vegetated shingle by smothering. The applicants do not detail any mitigation measures to reduce dust levels, but suggest that it could be dealt with through a Construction Environmental Management Plan. The RSPB recommends that detail is sought on this issue and that adequate mitigation is secured.

Habitat loss to runway construction – 2.17ha of the SAC would be lost to the runway extension, which the applicants predict will cause a moderate impact on the SAC (5.1.1 of the Runway Statement to Inform). The RSPB agrees that this would have an impact on the SAC

Impact of spoil disposal from runway construction – The applicants do not consider it in their list of construction impacts, but the project description (2.1.4 of the Runway Statement to Inform) states that 19,465m³ of spoil would be generated from runway excavations, which would be spread out within the clear and graded area and grassed over. The SAC is within the clear and graded area, so will be potentially affected by smothering and nutrient inputs from the soil. [Although SSSI impacts are outside the scope of the AA, the Dungeness, Romney Marsh and Rye Bay SSSI boundary includes all of the clear and graded area, so is at risk of being detrimentally impacted by this practice. This would potentially impact shingle ridge features, plants and invertebrates.]

Operational Impacts

Air pollution – As noted in our comments above at para' 4.8-4.12 of Annex 1, the nitrogen deposition levels at the Dungeness SAC are already at the point where vegetated shingle habitats could be damaged. It is not sufficient to rely on a trend of improving background air quality to mitigate impacts of the applications, because this trend is unlikely to continue, and it is unenforceable.

Cumulative Impacts

Habitat loss – The Statement to Inform the AA of the Terminal Building notes (paragraph 6.2.10) that Pond A, part of the SAC designated for great crested newt, needs to be filled in to create a clear and graded area alongside the runway for safety reasons. This means that there is a direct loss of part of the SAC from the runway extension and the filling in of Pond A to create the clear and graded area. The cumulative effects of both losses should be assessed in the AA.

Mitigation

The RSPB agrees that water quality and dust impacts alone, and in combination with other developments, are likely to be able to be mitigated by implementation of an appropriate Environmental Management Plan for construction and operation.

Habitat Loss – There will be 2.17ha of SAC lost to runway extension and 0.5ha of SAC lost due to Pond A being filled in. Section 7.1 of the Statement to Inform the AA of the Runway Extension states that the loss of 2.17ha of SAC will be mitigated by bringing an equivalent area of airfield or SAC land currently not vegetated shingle into such condition by appropriate habitat creation/management. No mention is made of replacement for Pond A, and it is not clear whether there is sufficient area to replace both losses. The applicant also states that 1,256m of new ditch will be created. It is not clear where this ditch will be or whether it will impact on the existing SAC features. Furthermore, it is not clear that this action can be regarded as mitigation, or whether it should more properly be regarded as compensatory habitat under the Habitats Regulations.

Air Quality – the applicant concludes that nitrogen deposition levels will be well below levels affecting lichen communities, and that impact would be negligible (section 7.2), and therefore proposes no mitigation. The RSPB disagrees with this conclusion. Nitrogen deposition will be above the lower limit of the critical threshold for impacts on vegetated shingle. Therefore, detrimental impacts are likely to be seen over part of the SAC. It is difficult to see how this impact will be mitigated, apart from reducing air and surface transport movements, which is unlikely to be acceptable to the applicant.

Conclusion

There is likely to be a residual impact, which has not been mitigated, from air pollution on the vegetated shingle interest of the SAC. There may also be a detrimental impact on the SAC from spoil disposal from the runway construction, habitat loss to the runway itself, and cumulatively with the loss of Pond A. Detail has not been provided by the applicants as to the extent of these impacts and how, and if it is possible, to mitigate them. Therefore, it is the RSPB's view that the applicants have failed to demonstrate that there will not be an adverse effect on the integrity of the SAC, and that as a result, the applications cannot be granted and comply with the Habitats Regulations.

Annex 4
Assessment of the Bird Control Programme by WildWings Bird Management

Assessment of bird control plans for London Ashford Airport

Introduction

Following my earlier report to the RSPB on the potential bird strike risk at London Ashford Airport (LAA), Lydd, Kent, (Feare 2005), the RSPB has now asked me to comment on two documents relating to the bird hazard control plan (BHCP) that has been prepared for the airport by Nigel Deacon, Airfield Wildlife Management and Dr Mark McLellan of Parsons Brinkerhoff (Parsons Brinkerhoff 2007).

These two documents describe the predicted impacts of the BHCP on bird species of conservation importance under two planning scenarios: 1) the proposed runway extension to allow a capacity of 300,000 passengers per annum (ppa), and 2) the proposed new terminal building to allow capacity to reach 500,000 ppa. The two documents, although stated to relate to different components of the proposed development of the airport, are practically identical, and the BHCP described in both documents appears to represent the proposed BHCP for the airport during construction and in subsequent operation.

Remit

The RSPB asked me:

- 1) To provide a critique of the Bird Control Plans produced by Lydd Airport.
- 2) Are the BCPs sufficient to reduce the bird strike risk to the level of 3 strikes per 10,000 aircraft movements (Lydd airport's stated aim)? Would the BCPs reduce the strike risk to levels acceptable to regulators (CAA)?
- 3) Would WildWings Bird Management suggest any changes to the BCPs that would be necessary to reduce the bird strike hazard to an acceptable level?

I also comment on:

- 4) The plan's considerations of the impact of airfield bird control on species for which the Dungeness to Pett Level SPA has been designated.
- 5) Possible implications of a BHCP for the management of the RSPB reserve (and other protected areas).

Background

As I explained in my 2005 report to the RSPB "Bird strike risk at London Ashford Airport" (Feare 2005), the proposed expansion of the airport to allow increased passenger numbers through the introduction of regular flights using jet aircraft would, if planning permission were granted, proceed in an area of high bird-strike risk. This is because the area in which the airport is situated houses large concentrations of birds of many species. These populations are such that local, national and international levels of protection have been conferred upon sites close to the airport in order to protect the bird communities and their habitats. Furthermore, there are aspects of the behaviour of many birds in the area that have not been investigated and thus present unquantifiable risks. During deliberations over the proposed construction of an international airport at Cliffe, north

Kent, that site was described as “probably one of the most hazardous locations in the country in terms of birdstrike risk” (Allan *et al.* 2002). In a subsequent more detailed analysis of the likely risk at Cliffe, Bell *et al.* (2003) concluded that “the proposed airport, even after extensive habitat management and active bird control, would be more hazardous than virtually all airports currently operating in the UK” and that “it was not possible to reduce the risk for all species to an acceptable level, even allowing for mitigation. This was principally because of the difficulty of managing some of the attractive habitats found around the proposed airport site”. This site was ultimately abandoned as a possible site for a new airport.

The location of the proposed development at Lydd shares many characteristics of the Cliffe site in terms of coastal location, available habitats that are outwith airport authority control, and large numbers of waterfowl and Lydd represents an extremely hazardous site in terms of what we know at present. Further hazards are likely to be identified by studies of migratory and nocturnal movements of birds and these studies should be essential before permission for the airport development is granted.

Under the CAA safeguarding guidelines (CAA 2007), any developments that would allow the occurrence of wildlife resources of this extent within 13 km of an airport would be grounds for objection through safeguarding procedures, on the basis of threat to air safety. It is therefore remarkable that such an airport development is being considered in an area where this abundance of wildlife already exists and receives legal protection, especially as the birds that are numerous in the area include most of the species that are perceived as especially hazardous to air safety in the UK (CAA 2002a, b). This context must be at the heart of a bird control plan for the airport.

1) A critique of the Bird Control Plans produced by Lydd Airport

Before considering the plan itself, I shall raise some issues that stem from statements in the preambles to both of the LAA papers on the predicted impacts of a BHCP on bird species of conservation importance near to LAA.

Comments on the preamble, especially section 3

First, the title of these documents surprises me, concentrating as they do on the species of conservation concern. The principal objective of a BHCP has to be flight safety and the impacts of BHCP actions on a certain small group of individual species, ornithologically significant as they may be, has little to do with flight safety. This concentration on the species for which the protected areas were designated perhaps stems from the fuller treatment of the significance of the protected areas in the document “*A statement to inform on the predicted impacts from a proposed new terminal building at the London Ashford Airport, Lydd, on the Dungeness to Pett Level Special Protection Area*” (Parsons Brinkerhoff 2007a). However, in these first public presentations of the BHCP for LAA this seems to be aimed at showing the BHCP in good light in conservation terms (see item 4, below).

In some parts of section 3, statements are made that are not mentioned in the BHCP (Appendix 1) and I raise them here but will deal with them in more detail in the appraisal of the BHCP. These points are questions that should be answered either by inclusion in the BHCP or through justification of their omission.

Section 3.2. The hazard monitoring radar at Kinloss is reported, and since its installation no goose strikes have been reported. Since installation, have goose flocks been detected by the radar and have flights been rescheduled as a result? This could have important implications for the LAA. Bird detecting radar has also been used in research into bird movements at La Mercy airport, South Africa, and continues to be used by air traffic control there to monitor the movements of roosting Barn Swallows *Hirundo rustica* in order to advise pilots of potential hazards (BirdLife 2007). This technology, and the analytical techniques to maximise the use and value of the data generated, are under continuing development (Lazarevic 2005).

Section 3.2.3. The end of paragraph 1 states that if hazardous species become trapped within netting installed to prevent bird access to airfield water bodies, they will be released. This suggests that all netted areas will be inspected at least once per day – is this the case, and will this be included in a revised BHCP? To be realistic, release of a trapped bird could well require the removal of part or all of the netting, followed by reinstallation of repaired or replacement netting. This instruction should also be included in the BHCP protocol.

Section 3.2.4. No mention is made of birds that nest inside buildings. Feral pigeons, jackdaws and starlings have all been recorded nesting in aircraft hangers and other buildings close to good feeding sites. What steps will be taken to prevent this? Has any consideration been given to the installation of deterrent systems to prevent gulls nesting on roofs? (see 4.4, below)

Section 3.2.6. “It is envisaged that there will be a dedicated bird control team”, and “The bird control vehicle is likely to be upgraded” are vague statements with no demonstrated commitment. What form will the vehicle upgrade take and, in light of the risk of the LAA site, why is only one dedicated vehicle considered adequate? Later in this section, handheld distress call equipment is considered to be more effective than vehicle mounted broadcasters because operators of handheld equipment can better judge the volume of sound being broadcast. The visible presence of a human presumably also contributes to the handheld device’s success. In this case, why place so much reliance on the vehicle mounted systems and should the LAA bird control team be equipped with small vehicles/motorbikes from which they emerge in full view of the birds and broadcast the relevant calls?

Section 4.7. *Residual impacts*. Who will undertake the study to investigate any impact of the BHCP on existing SPA-listed species and any proposed additions (which could include the entire bird community of 20-30,000 individuals), when will the study begin, who will fund it, who will decide whether BHCP or other factors are

involved in population changes, and who will decide what changes to the BHCP are needed to reverse negative effects?

The draft Bird Hazard Control Plan (= Bird Control Plan – Appendix 1)

I feel it necessary here to reiterate that this proposed development is in an area of high bird strike risk, with several unknown factors (Feare 2005), and that the extent of this risk is such that early finalisation of the BHCP, along with its staffing and funding, is essential. The outline presented here follows CAP772 guidelines but particular local conditions necessitate specific provisions. In addition, some of the proposals are vague: much more detail is needed to convince a reader that bird hazard management is being given the priority that it warrants at this site.

Sections 1 and 2. *Introduction and Bird hazard control aims and policy.* The plan should surely have been compiled to minimise air safety risks, irrespective of any other concerns.

Section 3. *Responsibilities and accountabilities.* There are expressions of vagueness here that suggest that the plan has not been clearly thought through and that resourcing has not been adequately considered. Currently the bird control duties are undertaken by the airport fire service; this is clearly inadequate and a dedicated team, whose sole task is bird strike avoidance, needs to be adequately staffed, trained, funded and equipped. Their role must be clearly defined, and the statement that “The primary roles and responsibilities are likely to be” suggests that this role has not been fully thought through.

Section 3.2. *Bird control coordinator (BCC).* The statement that “some of the duties carried out by the Bird Control Coordinator may be delegated to shift supervisors”. The Bird Control Coordinator is the expert in the field of bird management with responsibility for ensuring that the bird strike risk is minimised at all times. Who are the “shift supervisors” and what training and expertise will they have that enables them to be delegated a role of such seniority and responsibility?

Section 3.3. *Bird control operatives (BCO).* How many Bird Control Operatives will be appointed and maintained as permanent members of the team?

Section 3.4.c. *Air traffic control (ATC).* Pilots landing at and taking off from LAA may need to have considerable schedule flexibility during migration times.

Section 4.1. *Grass management.* The grass management modification proposed here seems appropriate. However, with such a free-draining soil in an area of the country that is predicted to become warmer and dryer, species composition may need to be re-evaluated and the provision of irrigation could be a possible future requirement. After bottoming out, these parts of the airfield grass will be left with a short sward. CAP722 (CAA 2007) suggests that this should be done in April-June. However, in May and June recently cut grass is likely to prove to be a highly attractive habitat, for a few days, to flocks of rooks, jackdaws, starlings and

possibly to flocks of crows if present in the vicinity. For a longer period these areas might be attractive to grazing waterfowl, especially Canada and grey lag geese. If cutting is undertaken in the autumn, the resulting short sward could prove attractive for grazing waterfowl for much of the early winter. After bottoming out these cut areas will need to be protected carefully to avoid bird attraction.

Section 4.3. *Aerodrome habitat: waterbody management.* “it is proposed that this needs to be corrected” is woolly. These water bodies *must* be netted in an area so rich in waterfowl. If the 20-30 cm mesh nets will not exclude moorhen and coot, they will not exclude teal, one of the most numerous ducks in the area (Feare 2005) and one that is slightly smaller than a coot.

Section 4.4. *Aerodrome habitat: roofing management.* Herring and lesser black-backed gulls are a potential roof-nesting hazard. As this is recognised in the BHCP, roof design should incorporate features that will deter their presence. (In the long term this could be cheaper, as well as more efficient, than the requirement for rooftop inspections and nest clearance at intervals through the breeding season.) Several products are available, including wires, and potentially attractive features to gulls should be designed out during the planning stage. The interiors of buildings can also be bird attractants and jackdaws, feral pigeons and starlings have all been recorded nesting in aircraft hangers. It is probably unrealistic to design out nest cavities for these species, but bird control operatives should be vigilant for indications that birds are searching for nest sites and to exclude birds from such sites.

Section 4.5. *Off-airfield habitat management.* Although released gamebirds are naïve and apparently unaware of potential danger, they are not themselves a significant hazard to aircraft as they spend most of their time on the ground and when disturbed tend to fly low. However, the shooting of them can cause widespread disturbance of other species, like gulls and wildfowl, which could create a hazard. The cessation of putting down gamebirds for shooting, the alteration of crops, cropping patterns and cultivation techniques, and modification of other land management techniques, will involve landowners in loss of earnings, additional expenditure and inconvenience. On some farms, the letting of shooting rights is a major source of farm income. What annual budget is envisaged to pay compensation to affected landowners and how will the amount be decided in each case? In some cases, LAA could encourage farmers to plant lure crops – attractive crops that are planted specifically to attract birds, thereby influencing their movements so that they remain away from the airport.

To what extent will the management of existing waterbodies be subject to risk assessment? Off-airfield waterbodies are integral parts of the SPA and other protected areas and their purpose is to attract waterbirds. In order to maximise this attraction, these waterbodies require periodic management in order to maintain their important habitat features. If any of this management is subject to risk

assessment by the LAA, this will interfere with the objectives of the SPA and other protected areas.

Section 5.1. *Surveillance and bird control patrols.* These surveillance techniques are satisfactory for birds close to the airfield during the day. My understanding is that the airport is intended also to operate at night, especially for cargo flights (Pearsons Brinkerhoff 2003, 2005). Using the survey techniques outlined, it will not be possible to monitor bird presence and movement in darkness, apart from those birds that might be visible in the airport's illumination. Waterfowl, waders and gulls are all known to undertake some of their movements in darkness. In addition, earlier radar studies have shown that the south-east of England is an area where migratory flightlines are concentrated in spring and autumn (Feare 2005), although the extent of this migration has not been studied in the Dungeness area. Some of this migration occurs at altitudes that render the birds invisible to a ground-based observer and these birds would therefore go unrecorded by both day and night, but could nevertheless still pose a hazard to approaching and departing aircraft. The preamble to the BHCP reports (Parsons Brinkerhoff 2007) mentions the use of bird hazard monitoring radar at RAF Kinloss. A system such as this should be a basic requirement for surveillance at LAA in view of the high numbers of risk species known to frequent the area, and the unknown number that may be present at night or on migration.

Section 5.2. *Operating area.* Presumably off-airfield action against a specific acute bird hazard will also require the permission of the landowner. The RSPB reserve to the south of LAA is within the flight path of departing/arriving aircraft (depending on wind direction); could there be exceptional circumstances where bird control operative might want to undertake active scaring on the reserve or SPA? What would these circumstances be (in other words, what might constitute an "acute hazard" on the reserve) and what protocol would LAA follow to ensure that RSPB staff were consulted and that disturbance to the RSPB reserve and the SPA were kept to a minimum? The BHCP further mentions the maintenance of a buffer zone, several hundred metres wide, around the perimeter of the aerodrome, within which birds would be scared, using scaring devices deployed within the airport boundary. This is stated to be intended to increase the amount of time that it takes for these birds to enter the airfield. An ill-defined buffer zone of this sort could lead to deliberate attempts to scare birds within parts of the SPA close to the airport, with a risk of alarming birds in other parts of the SPA, thereby exacerbating a possible hazard. This concept of a buffer zone outside the airport perimeter is not mentioned in CAP722 (CAA 2007) and is presumably included in the BHCP for LAA because of this site's very high birdstrike risk.

Section 5.3. *Patrol pattern.* The bird-strike risk at LAA is such that bird control operatives that are on duty should be completely dedicated to this work. They should never be called upon to undertake these other duties, for which other airport staff should have responsibility.

Section 5.4.1. *Bewick's swans*. Bird control staff can obtain considerable information on the diurnal and seasonal movements of waterfowl from the RSPB and Dungeness Bird Observatory staff and reports. Staff from these organisations could make a valuable contribution to the training of BCOs in their early careers and this could help with establishing good relations with these two neighbours. In relation to the flock of Bewick's swans, there is a possible risk that construction of the wind farm at Cheyne Court could send them back from Walland Marsh to the LAA area, as apparently has happened when the Little Cheyne pond dries out (Parsons Brinkerhoff 2007a). In the latter eventuality, mitigation could involve supplying water to ensure the level in the pond remains adequate for the swans. In addition to Bewick's swans, the Dungeness area supports up to 500 grey lag geese, 300 white-fronted geese (this population may be declining) and 350 Canada geese (Feare 2005). Movements of these large birds across or close to the airport will be potentially hazardous and should be regarded as a significant site-specific problem that needs addressing in the BHCP.

Section 6.1. *Bird control vehicle*. I fully understand the merits of having a 4x4 with good all-round visibility, and the capacity to carry all equipment that might be necessary for efficient bird scaring. However, it is acknowledged that bird scaring, using broadcast distress calls, is more efficient when using the hand held device than the fixed system normally present on a BHCP 4x4, doubtless due to its greater flexibility and to the presence of a readily visible human operator. Police motorbikes are capable of carrying a wide range of equipment, including radio and broadcasting equipment, and the human operator is visible at all times. The use of these as auxiliaries to the main vehicle should be considered, especially as the concentration of birds in the area could on occasions mean that two or more vehicles would be advantageous.

Section 6.2. *Distress call broadcast equipment*. I agree with most of what is said about the use of distress calls but, as mentioned above, question the preference for a vehicle mounted facility when the evidence suggests that a person using a hand held device is more effective.

Section 6.5. *Shooting and trapping*. The General Licence, issued by Defra, to allow the taking of certain birds to preserve air safety, names the species that may be taken. A concern at LAA is that, when shooting is deemed to be necessary, the bird control operator will have the ability to identify the species correctly. In most cases this will be straightforward and the operators' training and accumulating field experience will assure that he/she acts within the law, but a problem could arise with adult and young Mediterranean gulls, which can, without sufficient care, be confused with the much commoner black-headed and common gulls, especially when the target bird is viewed from behind a gun, rather than with binoculars.

Section 7. *Monitoring: record keeping, quality assurance and on-going risk assessment*. At LAA, which would be effectively a new airport operating within an area of

high birdstrike risk, but in which the scale of the risk is not yet known, additional records of occasions when active deterrence is used, and its effectiveness or otherwise against the species involved, could provide valuable information as the bird control unit builds up its experience in this particular environment. These records would provide a picture of diurnal and seasonal changes in species that have actually been perceived to be a threat, and possibly annual changes that could be related to population changes, or might provide an index of the effectiveness of the BHCP at the airport.

Section 7.1. *Record keeping*. There is no mention here of keeping corpses of birds found in situations that suggest they have been killed by aircraft and CAP722 (CAA 2007) does not state a requirement for this. However, this could assist with any independent checks of quality assurance.

Section 8.3. *Bird conservation areas*. This wider knowledge is absolutely vital and this understanding could be reinforced by involving RSPB, Dungeness Bird Observatory, JNCC staff, and people from other relevant organisations, in specific parts of training and refresher courses. As stated above, this could help in the process of developing mutual understanding and good relationships between LAA and these organisations.

Section 10.2 (this should be 9.2). *Local safeguarding policy*. Safeguarding is an essential part of the minimisation of bird strike risk from new development proposals within 13 km of an aerodrome and LAA will be duty bound to ensure that new development proposals are thoroughly reviewed in order to ensure the safety of its operations. Those responsible for the protected areas under local, national and European legislation have a duty to maintain and maximise the use of their land by wildlife, especially birds. This entails management of the land under their jurisdiction to maintain and improve habitats. The BHCP states the desire of the LAA is to be a “good neighbour” to local landowners and, if the development proceeds, this must be borne out in practice. In light of this stated desire for good relationships, it is surprising the LAA has not yet made an approach to the RSPB, even though the proposed development has been mooted for over four years.

2). Are the BCPs sufficient to reduce the bird strike risk to the level of 3 strikes per 10,000 aircraft movements (Lydd airport’s stated aim)? Would the BCPs reduce the strike risk to levels acceptable to regulators (CAA)?

It is impossible to say whether the BCP (=BHCP) will be sufficient to limit the bird strike frequency to a maximum of 3 strikes per 10,000 aircraft movements. This kind of target-setting is unrealistic and the statistic is little more than a hope. One catastrophic bird strike could be sufficient to throw the safety of the airport into question. With its location on widely used migration flight lines in spring and autumn, and very close to large concentrations of waterbirds, the risk of birdstrikes must be regarded as high, but it

cannot be quantified due to unknown factors that may differentiate this site from other coastal airports around the UK. These unknown factors include:

- a. the extent of movements, by day and night, of large numbers of waterfowl, especially ducks
- b. the extent of movement of migrating birds, of sufficiently large size to be hazardous and of smaller birds that habitually fly in flocks
- c. the altitude of movements of migrating birds, some of which may be beyond the range of the unaided eye or even of optical equipment, and would only be detectable by radar

The BCP (=BHCP) follows the practices set out in the latest CAA guidelines on safeguarding (CAP722 - CAA 2007), although, as outlined in my critique of the documents in section 1, there are areas of uncertainty that must be addressed before the BHCP can be regarded as robust. CAP722 is a general set of guidelines and does not take account of the possible exceptional location of LAA and the unknown factors listed above. The BHCP discusses site-specific hazards in section 5.4 but this section fails to mention possible problems associated with migration, with the presence of large numbers of geese, and with the very large numbers of ducks whose local and longer-distance movements have not been investigated.

3). Would WildWings Bird Management suggest any changes to the BCPs that would be necessary to reduce the bird strike hazard to an acceptable level?

3.1. As stated in my earlier report (Feare 2005), a radar study of nocturnal and high altitude bird movements is essential for a realistic assessment of the risk to aircraft in the approaches and in holding patterns around LAA. This study should include spring and autumn migration periods, along with winter observations to detect cold weather movements, which can involve ducks, geese, swans, plovers and starlings. The potential risks to air safety of these bird movements, the extent of which are currently unknown, are such that, in my opinion, consent for airport expansion should not be given until these studies have been undertaken. Furthermore, the studies should be undertaken by an organisation that possesses the appropriate bird-detecting radar, the expertise to use it and with the skills to undertake the complex data analyses involved.

3.2. The BHCP should include a specialist bird-detecting radar system, which will be an essential tool to detect nocturnal and high altitude movements of potentially hazardous birds during the operation of the airport, and should be regarded as an integral part of the equipment of the bird control strategy. The corollary of this is that pilots should have the flexibility of changing their schedules sufficiently to avoid periods of potentially hazardous bird movement which, during migration periods, can be prolonged in those areas of southern England where they have been studied by radar.

3.3. Where changes in the management of land around the LAA are deemed to be necessary, funding should be available to provide compensation to affected landowners to cover their costs, any losses, and inconvenience. There is a precedent for this in the UK at London Heathrow, which was highly successful in greatly reducing the number of

Canada geese that flew over the airport by encouraging farmers, with compensation, to alter their cropping patterns.

3.4. The BHCP refers only to nest removal a technique to prevent the establishment of a roof-nesting colony of gulls on the airport buildings. Design features/deterrents should be included in the roof structures of large buildings in order to minimise possible attraction to large gulls, which have a propensity to use these features for nesting and roosting. Vigilance must be maintained for the possibility that some species may attempt to nest or roost within buildings.

4) The plan's considerations of the impact of airfield bird control on species for which the Dungeness to Pett Level SPA has been designated

As recognised in the "Statement to inform" (Parsons Brinkerhoff 2007a), the birds for which the protected status of the SPA has been afforded are part of a much larger bird community, which is attracted to the sites by the availability of favourable habitats. Without the presence of this larger bird community, the rarer species might not find the area so attractive. The importance of the total community will shortly receive recognition by including waterbird flocks of more than 20,000 birds as a justification for SPA recognition. At this stage the entire bird community and its habitat requirements will receive protection against any factors that might reduce the number of birds that use the area.

I agree that in the main the airport BHCP will have little direct impact on the birds for which the SPA was designated. There are, however, two points of concern:

4.1. *Mediterranean gull*. If gulls are to be shot under a Defra General Licence, accidental killing of a Mediterranean gull is a possibility.

4.2. *Hen harrier*. The long grass policy could promote large small mammal populations that might attract hen harriers. Dispersal of these birds would be extremely difficult. These birds do not form dense flocks while feeding but can roost communally in winter, generally on the ground. When feeding they normally fly low, < 5 m, but before going to roost in the evening they may display at a higher altitude of < 30 m (Snow & Perrins 1998).

Indirect impacts of bird scaring or habitat management may also occur, especially where habitats are modified as these changes are longer lasting. For example, widespread crop changes, or widespread changes in the timing of farming events such as cultivation, are known to have had significant events on some bird populations in Britain. Where such changes are proposed for flight safety reasons, managers of protected areas should be consulted in order that potential problems can be identified and mitigation measures can be considered.

5). Possible implications of a BHCP for the management of the RSPB reserve (and other protected areas)

5.1. *Land management, planning permission and safeguarding.* While creation of new waterbodies and similar bird attractants would clearly come under planning regulation, management of existing water features, designed to maintain or enhance the bird populations of the reserve, are unlikely to warrant planning consent. However, these operations might increase the risk of birdstrike at the airport. For example, the end of section 4 of the preamble says that “Management and creation of new reedbed and waterbodies need to take account of local safeguarding policy”. The RSPB should (if it has not already) seek guidance on what management practices should be reported in advance, to whom, and on associated liability issues.

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