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The Planning Inspectorate

PLANNING APPEAL FORM (Online Version)

WARNING: The appeal **and** essential supporting documents **must** reach the Inspectorate within the appeal period. **If your appeal and essential supporting documents are not received in time, we will not accept the appeal.**

Appeal Reference: APP/W9500/W/17/3178824

A. APPELLANT DETAILS

The name of the person(s) making the appeal must appear as an applicant on the planning application form.

Name	Mr Robert Walker
Address	South Moor Farm Langdale End SCARBOROUGH YO13 0LW

Preferred contact method: Email ☐ Post ☑

B. AGENT DETAILS

Do you have an Agent acting on your behalf? Yes ☑ No ☐

Name	Mrs Louise Gregory
Company/Group Name	Acorus Rural Property Services Ltd
Address	Acorus Rural Property Services, Old Market Office 10 Risbygate Street BURY ST. EDMUNDS Suffolk IP33 3AA
Phone number	
Email	

Preferred contact method: Email ☑ Post ☐

C. LOCAL PLANNING AUTHORITY (LPA) DETAILS

Name of the Local Planning Authority	North York Moors National Park Authority
LPA reference number	NYM/2016/0817/FL
Date of the application	24/11/2016

Did the LPA validate and register your application? Yes ☑ No ☐

Did the LPA issue a decision?	Yes	☑ No	☐
Date of LPA's decision	17/02/2017		

D. APPEAL SITE ADDRESS

Is the address of the affected land the same as the appellant's address?	Yes	☑ No	☐

Address

South Moor Farm
Langdale End
SCARBOROUGH
YO13 0LW

Is the appeal site within a Green Belt?	Yes	☐ No	☑
Are there any health and safety issues at, or near, the site which the Inspector would need to take into account when visiting the site?	Yes	☐ No	☑

E. DESCRIPTION OF THE DEVELOPMENT

Has the description of the development changed from that stated on the application form?	Yes	☐ No	☑

Please enter details of the proposed development. This should normally be taken from the planning application form.

Change of use of land to form 1 no grass runway and construction of pilot/rest room building (revised scheme following dismissal of appeal of appeal of NYM/2015/0781/FL)

Area (in hectares) of the whole appeal site [e.g. 1234.56]	5.7 hectare(s)
Area of floor space of proposed development (in square metres)	0 sq metre(s)

Does the proposal include demolition of non-listed buildings within a conservation area?	Yes	☐ No	☑

F. REASON FOR THE APPEAL

The reason for the appeal is that the LPA has:

1. Refused planning permission for the development.	☑
2. Refused permission to vary or remove a condition(s).	☐
3. Refused prior approval of permitted development rights.	☐
4. Granted planning permission for the development subject to conditions to which you object.	☐
5. Refused approval of the matters reserved under an outline planning permission.	☐
6. Granted approval of the matters reserved under an outline planning permission subject to conditions to which you object.	☐
7. Refused to approve any matter required by a condition on a previous planning permission (other than those specified above).	☐
8. Failed to give notice of its decision within the appropriate period (usually 8 weeks) on an application for permission or approval.	☐
9. Failed to give notice of its decision within the appropriate period because of a dispute over provision of local list documentation.	☐

G. CHOICE OF PROCEDURE

There are three different procedures that the appeal could follow. Please select one.

1. Written Representations ☑

(a) Could the Inspector see the relevant parts of the appeal site sufficiently to judge the proposal from public land? Yes ☐ No ☑

(b) Is it essential for the Inspector to enter the site to check measurements or other relevant facts? Yes ☑ No ☐

Please explain.

The Inspector needs to enter the site to assess the proposal

2. Hearing ☐

3. Inquiry ☐

H. FULL STATEMENT OF CASE

☑ see 'Appeal Documents' section

Do you have a separate list of appendices to accompany your full statement of case? Yes ☐ No ☑

(a) Do you intend to submit a planning obligation (a section 106 agreement or a unilateral undertaking) with this appeal? (Please attach draft version if available) Yes ☐ No ☑

(b) Have you made a costs application with this appeal? Yes ☐ No ☑

I. (part one) SITE OWNERSHIP CERTIFICATES

Which certificate applies?

CERTIFICATE A

I certify that, on the day 21 days before the date of this appeal, nobody, except the appellant, was the owner of any part of the land to which the appeal relates; ☑

CERTIFICATE B

I certify that the appellant (or the agent) has given the requisite notice to everyone else who, on the day 21 days before the date of this appeal, was the owner of any part of the land to which the appeal relates, as listed below: ☐

CERTIFICATE C and D

If you do not know who owns all or part of the appeal site, complete either Certificate C or Certificate D and attach it below. ☐

I. (part two) AGRICULTURAL HOLDINGS

We need to know whether the appeal site forms part of an agricultural holding.

(a) None of the land to which the appeal relates is, or is part of, an agricultural holding. ☑

(b)(i) The appeal site is, or is part of, an agricultural holding, and the appellant is the sole agricultural tenant. ☐

(b)(ii) The appeal site is, or is part of, an agricultural holding and the appellant (or the agent) has given the requisite notice to every person (other than the appellant) who, on the day 21 days before the date of the appeal, was a tenant of an agricultural holding on all or part of the land to which the ☐

appeal relates, as listed below.

J. SUPPORTING DOCUMENTS

01. A copy of the original application form sent to the LPA.	☑
02. A copy of the site ownership certificate and agricultural holdings certificate submitted to the LPA at application stage (if these did not form part of the LPA's planning application form).	☑
03. A copy of the LPA's decision notice (if issued). Or, in the event of the failure of the LPA to give a decision, if possible please enclose a copy of the LPA's letter in which they acknowledged the application.	☑
04. A site plan (preferably on a copy of an Ordnance Survey map at not less than 10,000 scale) showing the general location of the proposed development and its boundary. This plan should show two named roads so as to assist identifying the location of the appeal site or premises. The application site should be edged or shaded in red and any other adjoining land owned or controlled by the appellant (if any) edged or shaded blue.	☑
05. (a) Copies of all plans, drawings and documents sent to the LPA as part of the application. The plans and drawings should show all boundaries and coloured markings given on those sent to the LPA.	☑
05. (b) A list of all plans, drawings and documents (stating drawing numbers) submitted with the application to the LPA.	☑
05.(c) A list of all plans, drawings and documents upon which the LPA made their decision.	☐
06. (a) Copies of any additional plans, drawings and documents sent to the LPA but which did not form part of the original application.	☐
06. (b) A list of all plans, drawings and documents (stating drawing numbers) which did not form part of the original application.	☐
07. A copy of the design and access statement sent to the LPA (if required).	☐
08. A copy of a draft statement of common ground if you have indicated the appeal should follow the hearing or inquiry procedure.	☐
09. (a) Additional plans, drawings or documents relating to the application but not previously seen by the LPA. Acceptance of these will be at the Inspector's discretion.	☐
09. (b) A list of all plans and drawings (stating drawing numbers) submitted but not previously seen by the LPA.	☐
10. Any relevant correspondence with the LPA. Including any supporting information submitted with your application in accordance with the list of local requirements.	☐
11. If the appeal is against the LPA's refusal or failure to approve the matters reserved under an outline permission, please enclose:	
(a) the relevant outline application;	☐
(b) all plans sent at outline application stage;	☐
(c) the original outline planning permission.	☐
12. If the appeal is against the LPA's refusal or failure to decide an application which relates to a condition, we must have a copy of the original permission with the condition attached.	☐
13. A copy of any Environmental Statement plus certificates and notices relating to publicity (if one was sent with the application, or required by the LPA).	☐
14. If the appeal is against the LPA's refusal or failure to decide an application because of a dispute over local list documentation, a copy of the letter sent to the LPA which explained why the document was not necessary and asked the LPA to waive the requirement that it be provided with the application.	☐

K. OTHER APPEALS

Have you sent other appeals for this or nearby sites to us which have not yet been decided? Yes ☐ No ☑

L. CHECK SIGN AND DATE

(All supporting documents must be received by us within the time limit)

I confirm that all sections have been fully completed and that the details are correct to the best of my knowledege.

I confirm that I will send a copy of this appeal form and supporting documents (including the full statement of case) to the LPA today.

Signature	Mrs Louise Gregory
Date	27/06/2017 10:35:00
Name	Mrs Louise Gregory
On behalf of	Mr Robert Walker

The gathering and subsequent processing of the personal data supplied by you in this form, is in accordance with the terms of our registration under the Data Protection Act 1998. Further information about our Data Protection policy can be found on our website under Privacy Statement.

M. NOW SEND

Send a copy to the LPA

Send a copy of the completed appeal form and any supporting documents (including the full statement of case) not previously sent as part of the application to the LPA. If you do not send them a copy of this form and documents, we may not accept your appeal.

To do this by email:

- open and save a copy of your appeal form
- locating your local planning authority's email address:

  https://www.gov.uk/government/publications/sending-a-copy-of-the-appeal-form-to-the-council
- attaching the saved appeal form including any supporting documents

To send them by post, send them to the address from which the decision notice was sent (or to the address shown on any letters received from the LPA).

When we receive your appeal form, we will write to you letting you know if your appeal is valid, who is dealing with it and what happens next.

You may wish to keep a copy of the completed form for your records.

N. APPEAL DOCUMENTS

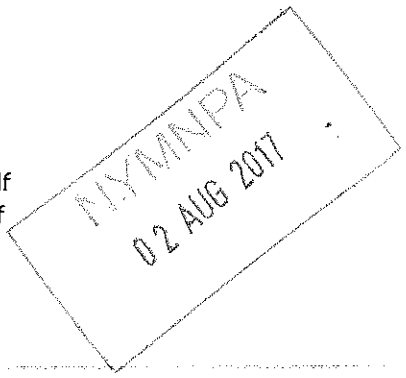
We will not be able to validate the appeal until all the necessary supporting documents are received.

Please remember that all supporting documentation needs to be received by us within the appropriate deadline for the case type. Please ensure that any correspondence you send to us is clearly marked with the appeal reference number.

You will not be sent any further reminders.

The documents listed below were uploaded with this form:

Relates to Section:	FULL STATEMENT OF CASE
Document Description:	A copy of the full statement of case.
File name:	S of C - Appendix 1 Bird Assessment.pdf
File name:	S of C Appendix 2 - Forestry Commission Letter.pdf
File name:	Statement of Case.pdf
Relates to Section:	SUPPORTING DOCUMENTS
Document Description:	01. A copy of the original application sent to the LPA.
File name:	Application Form.pdf
Relates to Section:	SUPPORTING DOCUMENTS
Document Description:	02. A copy of the site ownership certificate and agricultural holdings certificate submitted to the LPA at application stage (these are usually part of the LPA's planning application form).
File name:	Application Form.pdf
Relates to Section:	SUPPORTING DOCUMENTS
Document Description:	03. A copy of the LPA's decision notice (if issued). Or, in the event of the failure of the LPA to give a decision, if possible please enclose a copy of the LPA's letter in which they acknowledged the application.
File name:	Refusal Notice.pdf
Relates to Section:	SUPPORTING DOCUMENTS
Document Description:	04. A site plan (preferably on a copy of an Ordnance Survey map at not less than 10,000 scale) showing the general location of the proposed development and its boundary. This plan should show two named roads so as to assist identifying the location of the appeal site or premises. The application site should be edged or shaded in red and any other adjoining land owned or controlled by the appellant (if any) edged or shaded blue.
File name:	200-01 South Moor Farm - Location Plan.pdf
Relates to Section:	SUPPORTING DOCUMENTS
Document Description:	05.a. Copies of all plans, drawings and documents sent to the LPA as part of the application. The plans and drawings should show all boundaries and coloured markings given on those sent to the LPA.
File name:	Archaeology Appendix 2.pdf
File name:	Shed plans and elevations.pdf
File name:	Appendix 2 - Noise Assessment.pdf
File name:	Archaeology Appendix 3a.pdf
File name:	Archaeology Appendix 1.pdf
File name:	Planning Statement and Appendix 1.pdf
File name:	Appendix 4 - Archaeology Assessment.pdf
File name:	200-02 South Moor Farm - Block Plan.pdf
File name:	Appendix 3 - Bird Assessment.pdf
File name:	Archaeology Appendix 3.docx
Relates to Section:	SUPPORTING DOCUMENTS



Document Description:	05.b. A list of all plans, drawings and documents (stating drawing numbers) submitted with the application to the LPA.
File name:	Documents Submitted with Application.pdf
Completed by	MRS LOUISE GREGORY
Date	27/06/2017 10:35:00

ENGLISH NATURE

Birds Network

INFORMATION NOTE

Disturbance effects of aircraft on birds

Introduction

The purpose of this note is to examine the evidence of impacts on bird populations resulting from disturbance caused by aircraft. This includes an assessment of the effects of different aircraft types and their proximity, altitude and frequency of flight. Other important factors discussed are differences in sensitivity shown by different species and flock sizes and behavioural responses such as habituation and facilitation. The evidence for harmful disturbance caused by aircraft is then presented under a number of categories of impacts including: increased energy expenditure, reduced foraging rates, reduced breeding success and increased predation. Finally, a number of measures that may reduce disturbance impacts are described, including changes to flight altitudes and the use of no-fly zones.

Before discussing the impact of disturbance caused by aircraft, it is important to define the meaning of disturbance in this context. Disturbance can be defined as 'any situation in which a bird behaves differently from its preferred behaviour' or 'any situation in which human activities cause a bird to behave differently from the behaviour it would exhibit without the presence of that activity'. Here we are concerned mainly with the latter definition, although natural causes of disturbance (weather, predators) will always play an important role and may result in even greater impacts when combined with disturbance caused by human activities.

A gradient or hierarchy of behavioural responses to disturbance shown by birds is described by much of the work presented below. For example, the lowest detectable response is for a bird to briefly look in the direction of the source of disturbance before resuming its previous activity. The other extreme would be for a flock of birds to fly away from an area and to not return for several hours, or even days. Such high levels of disturbance resulting in flushing or escape behaviour are quite likely to have an effect, for example, by increasing the energy expenditure of wintering birds. The more difficult question to answer is at what point along the lower end of the gradient does the disturbance result in an impact on a population. For example, repeated exposure to lower levels of disturbance may result in increased stress which, in turn, may cause lower breeding success.

Useful introductions to bird disturbance and further information on the above issues can be found in Davidson & Rothwell (1993) and Hill *et al* (1997).

Disturbance caused by aircraft

The degree of disturbance caused by aircraft relative to other sources of disturbance varies greatly. For example, Grubb & Bowerman (1997) cite results from research on the human disturbance of Bald Eagles where aircraft caused the lowest frequency of behavioural

response of the five disturbance groups evaluated (vehicle, pedestrian, aquatic, noise, aircraft). By contrast, small aircraft and pedestrians were the most important sources of disturbance in a study of waders at a high-tide roost on Terschelling, the Netherlands, summarised by Smit & Visser (1993). Bélanger & Bédard (1989) also concluded that the time spent in flight and the time taken to resume feeding by staging Snow Geese in the Montmagny bird sanctuary, Québec, were greater after disturbance by aircraft than after any other type of disturbance encountered in their study.

Disturbance caused by different types of aircraft

Differences in response to different types of aircraft have also been identified. The work on Bald Eagles by Grubb & Bowerman (1997) established that the eagles in their study showed a much greater response to helicopters (47% of all potential disturbance events) than to jets (31%) and light planes (26%). This is consistent with Platt (1977) who recorded that helicopter flights at 160 m altitude or less disturbed all adult Gyrfalcons being tested. Visser (1986) also compared the effects of jets and helicopters on roosting waders on Terschelling and found that helicopters disturbed birds more frequently and over longer distances than jets, even though the activities from jets were accompanied by weapon testing and high sound levels. Similar results were found in a study of small aircraft flying over wader roosts in the German Wadden Sea (Heinen 1986). In this study helicopters disturbed most often (in 100% of all potentially disturbing situations), followed by jets (84%), small civil aircraft (56%) and motor-gliders (50%). These data confirm the widely accepted view that helicopters are the most disturbing type of aircraft (Watson 1993).

The effects of ultra light aircraft are briefly described by Smit & Visser (1993). Although very little research on the effects of ultra lights has been carried out so far, there is evidence that they can cause significant disturbance, probably because of the low altitude at which they operate and the noise they produce. For example, the numbers of roosting and foraging Bewick's Swans close to an ultra light air strip in the Delta area of the Netherlands dropped from 1,400-4,300 in 1986-88 to only a few birds in 1989, after the strip has been used for one year (Smit & Visser 1989). However, this must be compared with the results of a study on the effects of microlights on wintering Pink-footed Geese near the Ribble Estuary (Evans 1994). Although only based on six observations during January to March, this study concluded that birds rapidly habituated to the presence of microlights landing and taking off from an air-strip only 250 m from their feeding areas.

Effects of proximity and frequency of aircraft flights

The altitude and lateral distance of aircraft have been shown to be important factors affecting bird disturbance. In a model of helicopter disturbance of moulting Black Brant geese it was shown that altitude strongly influenced the results, as measured by the number of birds disturbed and by weight loss. At an altitude of 1220-1830 m (depending on helicopter size) there was no predicted weight loss. However, helicopters at 915-1065 m disturbed most birds along all the flight routes. The greatest weight loss was predicted to occur with helicopters at 305-460 m (Miller 1994). Work carried out by Ward *et al* (1994) also confirms an effect of aircraft altitude for staging Black Brant on the Izembeck Lagoon, Alaska. It was found that large planes flying above 610 m had little effect, causing only brief responses by relatively few birds. Fixed-wing aircraft caused the greatest flight response when passing at less than 610 m and less than 0.8 km lateral distance to the flock. Similarly, Owens (1977) reported that wintering Black Brant showed a greater response to fixed-wing aircraft at less than 500

m altitude and less than 1.5 km lateral distance. Aircraft disturbed Black Brant at greater distance than other disturbance types and affected more geese over a larger area than other stimuli. Again, helicopters caused the greatest response duration of all aircraft types. Jensen (1990) found that helicopters had to fly at over 1070 m to avoid disturbing moulting Black Brant. Mosbech & Glahder (1991) suggest that *distant* helicopters are less disturbing when at low altitudes as they are likely to transmit less noise than helicopters at a higher flying level.

Observations of cliff-nesting seabirds on the coast of Aberdeenshire by Dunnet (1977) showed that helicopters and fixed-wing aircraft flying at 150 m above sea level and 100 m above the cliff top caused no detectable effect on the attendance of breeding Kittiwakes and Guillemots at their nests during egg-laying and hatching. However, it was noted that the cliffs are on the normal route of air traffic and thus the birds may have become habituated. No observations were made of aircraft at less than 100 m above the cliff top. Very different responses by seabirds, presumably not habituated, have been recorded on Ailsa Craig in the Firth of Clyde. During one incident a Hercules transport aircraft made successive flights about 200 m above the summit of the island. This caused an entire gannet colony to scatter for about an hour, leaving eggs and small chicks exposed to predation (Zonfrillo 1992).

Smit & Visser (1993) cite further information on the effects of small civil aircraft on roosting shorebirds at different altitudes:

- Aircraft at an altitude of more than 300 m at various sites in the German Wadden Sea disturbed birds in 8% of all potentially disturbing situations, with those flying at 150-300 m in 66% of the cases and those flying at less than 150 m in 70% (Heinen 1986).

- Disturbance in another study was always registered at 150 m altitude and, at a height of 300 m, there was still disturbance within a radius of 1,000 m (Baptist & Meininger 1984). It has been estimated that an aircraft passing over at 150 m creates a disturbed area of more than 15,000 ha (Meer 1985).

- Disturbance can still be detected when aircraft pass at 1000 m altitude (Werkgroep Waddenzee 1975).

- In addition to altitude, the behaviour of aircraft also influences disturbance levels. Flying high in a straight line leads to smaller effects than flying low or with unpredictable curves (Boer *et al* 1970).

Experimental studies of the effects of microlights on Pink-footed Geese (Evans 1994) indicated that they caused no detectable disturbance of geese, Lapwing, Curlew or Golden Plover when over 1000 ft. Signs of disturbance were first noted at around 500 ft.

Turning to the effect of lateral distance of aircraft, a study of the effects of low level jets on nesting Osprey in Labrador, Canada, could not identify any significant disturbance to birds from over-flights as close as 0.75 nautical miles (Trimper *et al* 1998). However, the Ospreys in this study may have habituated to aircraft during exposures in previous years. Visser (1986) detected the disturbance of roosting waders on Terschelling by jets flying up to 1000 m away. Brent Geese on the Essex coast were put to flight by any aircraft up to 1.5 km away when at altitudes below 500 m (Owens 1977).

Research has also been carried out to assess the effect of the frequency of aircraft flights on birds. For example, a study of staging Snow Geese in the Montmagny bird sanctuary, Québec, found that a rate of greater than two disturbances per hour during a single day could reduce the numbers of geese present on the site the following day (Bélanger & Bédard, 1989). Simulations of the effects of over-flights on moulting Black Brant also showed that increasing flight frequency usually caused greater impact on the birds through increased weight loss (Miller 1994). Similarly, experiments on feeding waders on tidal flats on Terschelling showed that 10 minutes after a single disturbance by a small plane at 360 m altitude bird numbers had returned to the same level as prior to disturbance. However, a plane passing twice, at 450 and 360 m respectively, caused a stronger effect, with only 67% of original number of Oystercatcher and 87% of the Curlew returning after 45 minutes (Glimmerveen & Went 1984).

Effect of noise

There has been little work on the effects of aircraft noise on birds. Busnel (1978) states that some species, such as gulls on airfields, breed close to extremely loud man-made noises without ill effects. Birds are assumed to habituate to the frequent loud noises of landing and departing aircraft, and only unusually loud noises are known to cause a reaction of alarm in these circumstances. Similarly, during the study by Owens (1977), Brent Geese quickly became habituated to most sounds, including extremely loud but regular bangs made during weapon testing. In another study of the effects of pre-recorded aircraft noise on nesting seabirds on Australia's Great Barrier Reef it was found that Crested Terns showed the maximum response of preparing to fly or flying off at exposures of greater than 85 dB(A). However, a scanning behaviour involving head-turning was observed in nearly all birds at all levels of exposure down to 65 dB(A), a level only just above that of the background noise (Brown 1990). It is not known what effect repeated exposure to lower noise levels can have on birds, although Fletcher (1988) found that low level jet and helicopter over-flights can cause physiological changes in domestic animals that may represent symptoms of stress.

Work by Mosbech & Glahder (1991) found that moulting geese in north-eastern Greenland showed signs of disturbance before helicopters were visible and that, typically, the noise stimuli alone disturbed the geese. Trimper *et al* (1998) found that nesting Osprey exhibited a similar response, staring at an approaching aircraft before it was audible to observers. There is also circumstantial evidence associating a near total hatching failure of Sooty Terns nesting on the Dry Tortugas Islands with sonic booms produced by low-flying military jets (reviewed in Bell 1972). However, Schreiber & Schreiber (1980) investigated sonic boom effects on colonial nesting gulls and cormorants and concluded that, compared to a human walking into a colony, a sonic boom had a minimal effect. Further work is needed to examine the combined effects of visual and acoustical stimuli. For example, trial balloon flights during a study by Brown (1990) indicated additional or interactive effects from the visual stimulus. In situations where background noise from natural sources is continually high the visual stimulus may have a greater effect.

Sensitivity of different species and effect of flock size

Significant variations in the sensitivity of different species have been observed during studies of the effects of aircraft on birds. For example, during observations of roosting waders on Terschelling, the Netherlands, it was found that Oystercatchers were rather tolerant of aircraft disturbance and Bar-tailed Godwits and Curlews were less so (Visser 1986). Different

responses were also found during a study of coastal waterfowl in the German Wadden Sea. Brent Geese were amongst the most strongly reacting species (being disturbed in 64-92% of all potentially disturbing situations), together with Curlew (42-86%) and Redshank (70%), with Shelduck (42%) and Bar-tailed Godwit (38%) reacting less often (Heinen 1986). However, identifying consistent trends within species is difficult, as shown by another study of waders on Terschelling by Glimmerveen & Went (1984) where the recovery time following disturbance caused by a small air plane was greater for Oystercatcher (30 minutes before feeding resumed) than Curlew (7 minutes).

The relationship between flock size and disturbance was noted by Bélanger & Bédard (1989) when disturbance rates for staging Snow Geese were higher when more birds were present. Similarly, Owen (1977) observed that larger flocks of Black Brant geese took flight at a greater distance than did smaller flocks when approached by people, and Madsen (1985) observed the same reaction in staging Pink-footed Geese in Denmark. Disturbance behaviour of flocks is largely determined by the behaviour of the most nervous members of the group. Take-off of only a few birds may cause the entire flock to take flight, and the larger the flock the more chance of it containing a higher number of especially susceptible individuals. Thus, species that form large flocks may be more vulnerable to disturbance from aircraft.

Habituation and facilitation

The absence of any visible response of some species to aircraft suggests that, under certain circumstances, habituation may take place. The process of 'learning' that a particular stimulus is not associated with risk is probably encouraged by a more or less constant and predictable exposure to that stimulus. This may be the reason for the presence of Lapwings, gulls and Starlings at airfields where the movements and sound levels of planes are very predictable (Burger 1981). Similarly the habituation of nesting Ospreys to human activity has been shown to vary depending on the frequency and type of disturbance (Daele & Daele 1982). Ospreys nesting near humans, highways and the approach corridors for aircraft habituated to those activities, whereas others nesting farther from humans were less tolerant (Mullen 1985).

The importance of 'predictable' stimuli is illustrated in a study of feeding and roosting waders at Texel, the Netherlands, where it was found that a high degree of habituation had occurred to helicopters passing over at a frequency of 2-3 per hour at 100-300 m altitude. However, 'unusual' types of plane, which show up at low frequencies, still had strong effects (Smit & Visser 1993). This study suggests that birds are able to distinguish between types of plane as they do between aerial predators. Koolhaas *et al* (1993) note that habituation is only likely to develop in those individuals that are persistent in using an area throughout the season. Furthermore it is likely that birds never habituate to some types of disturbance. For example, studies of the effects of shooting ranges on roosting waders on Vlieland, the Netherlands, suggest that certain species could not habituate and, as a result, moved to alternative sites (Tanis 1962). Similarly, in a study of wintering Dark-bellied Brent Geese it was noted that, although birds quickly became habituated to most sounds, they never habituated to small, low-flying aircraft (Owens 1977). Jensen (1990) also found that moulting Black Brant geese did not habituate to over-flights.

The opposite to habituation, referred to as facilitation, may also occur when a combination of disturbing stimuli leads to an impact that far exceeds the effect that each activity alone would have had. For example, a study by Smit & Visser (1993) at Texel showed that, following

exposure to an unusual aircraft type, otherwise habituated birds became more vulnerable to other forms of disturbance. Thus, an over-flying Grey Heron could cause a panic reaction much greater than would occur under normal conditions. A similar effect was found by Küsters & Raden (1986) on Sylt, Germany, where over-flying jets appeared to have greater effects when wind surfers had previously been in the area. Thus, the effect of facilitation is that birds become much more sensitive to relatively low levels of disturbance.

Impacts of aircraft disturbance on bird populations

As described above, the response of birds to disturbing events depends on a wide range of factors. These include the level of disturbance, reactions of other birds nearby, flock size and knowledge from earlier experiences (habituation and facilitation). Additional factors determine either their willingness to remain in the same place (scarcity of food, adverse weather, physiological condition of individual birds) or their motivation to leave for another place (daily and annual patterns of movement related to time of year and tidal level, or the presence of alternative sites). For this reason it is difficult to accurately predict the response of birds to different sources of disturbance. However there is evidence that, under certain circumstances, disturbance can have serious consequences for bird populations. The evidence of disturbance-related effects on bird populations is presented under the following categories of impacts.

Reduced food intake rates

There is general evidence that disturbance can significantly reduce food intake rates. For example, Beliën & Brummen (1985) found that birds forced out from preferred feeding areas may often simply wait until the source of disturbance has disappeared before resuming feeding. This was shown by the experimental disturbance of a single Oystercatcher. The bird was forced out from its preferred feeding site to another area where, despite the presence of other feeding birds, its intake rate dropped to almost zero. These results are confirmed by Hooijmeijer (1991) during similar work on Oystercatcher at Texel, the Netherlands. This showed that resting and walking during disturbance become the more dominant behaviour than feeding. Also, the food intake rate during the recovery period following disturbance was much higher than normal, presumably a result of birds trying to compensate for the loss of feeding time. Similarly, in response to frequent helicopter disturbance, the amount of time spent grazing by Pink-footed Geese in Northeast Greenland was decreased (Mosbech & Glahder 1991). Instead, the geese spent more time on the water and resting on ice floes. It was concluded that helicopter disturbance had a drastic impact on the time budget of Pink-footed Geese in this area.

Obviously, the impact of reduced intake rates will depend on other factors, including the physiological condition of the disturbed birds and their ability to compensate, for example, by feeding at night. This is illustrated by a simulation of the impact of helicopter flights on staging Black Brant geese which indicated that disturbance could result in significant weight loss (Miller 1994). Taylor (1993) found that Black Brant nearing the completion of wing moult are 'nutritionally emaciated' and that, for birds already in such poor condition, the additional loss of weight resulting from disturbance could result in abnormal or incomplete moult, if not decreased survival. Concerning compensation for reduced intake rates, Jensen (1990) suggested that gut capacity and passage rates and forage digestibility might limit the ability of Black Brant to compensate for lost feeding.

Increased energy expenditure

A potentially serious consequence of the extra flights needed to escape sources of disturbance is that energy expenditure will increase. The energetic costs of man-induced disturbance to staging Snow Geese in the Montmagny bird sanctuary, Québec, have been estimated by Bélanger & Bédard (1989). Human activities here accounted for over 80% of all disturbances recorded, with hunting and over-flying aircraft ranked highest. Two responses of birds to disturbance were considered: birds fly away but promptly resume feeding; and birds interrupt feeding altogether. The average rate of disturbance (1.46/hr) for the first response was estimated to result in a 5.3% increase in hourly energy expenditure combined with a 1.6% reduction of energy intake. The disturbance for the second, more prolonged, response was estimated to result in a 3.4% increase in hourly energy expenditure and a 2.9% reduction of energy intake. A conclusion from this study is that high levels of disturbance may have harmful energetic consequences for Snow Geese in Québec. More than two disturbances per hour may cause an energy deficit that no behavioural compensatory mechanism (such as night feeding) can counterbalance. Davis & Wiseley (1974) carried out similar work and claimed that an average seasonal disturbance rate of one event every two hours would cause a reduction of 20.4% in the energy reserves of staging Snow Geese. White-Robinson (1982) noted that wintering Black Brant geese increased their energy expenditure by 15% because of flights in response to disturbance.

Decreased breeding productivity

Disturbance caused by aircraft can have a range of impacts on breeding birds. Harmful effects include interference with courtship and initial nesting activities, the loss of eggs and chicks as a result of predation or exposure to adverse weather, and greater chick mortality due to starvation or premature fledging. However, the linkage between disturbance and decreased breeding productivity is not always clear and often it is not possible to conclusively show adverse effect. For example, the study by Dunnet (1977) of cliff-nesting seabirds found no evidence that aircraft affected incubating and brooding Kittiwakes, though habituation may have influenced the results. Some of the most dramatic evidence comes from 'catastrophic' incidents of the type described at Ailsa Craig (Zonfrillo 1992) where a low over-flight by a Hercules transport aircraft resulted in the estimated loss of 2000 Gannet eggs or chicks to gull predation. Another incident at the same location caused young auks, mostly Guillemots, to panic and fall from their ledges, resulting in the death of at least 123 birds. A similar panic response has been recorded for species of heron where, because of flimsy nest construction and vulnerable locations, rapid flights from the nest can result in the loss of eggs or young (reviewed in Bell 1972).

More subtle effects were suggested by Burger (1981) in a study of Herring Gulls nesting near Kennedy International Airport. These birds had a lower mean clutch size than expected and it was proposed that this was an indirect result of aircraft disturbance. Significantly more gulls flew up and engaged in more fights when aircraft flew overhead than under normal conditions and it was observed that eggs were broken during these fights. Under normal conditions fights between gulls do not occur because adults return to their nests at different times. However, the aircraft disturbance synchronized the landings of close nesting pairs thus increasing the likelihood of territorial disputes. Chick mortality as a result of aircraft disturbance is also cited by Grubb & Bowerman (1997) where the death of a nestling Bald Eagle was attributed to frequent helicopter flights less than 30 m from the nest which significantly reduced prey deliveries by the adults.

Birds are particularly sensitive to disturbance early in the breeding season. For example, Palmer (1976) and Myerriecks (1960) discuss the sensitivity of Great Blue Herons to startle effects during the early stages of courtship and nesting. Similarly, in a review by Vana-Miller (1987), sporadic activity following the initiation of nesting has been found to have severe effects on Osprey reproduction.

Physiological changes

There has been much experimental work on the effect of noise on the physiology of animals, both wild and domestic (Bell 1972, Fletcher 1988). For example, research on heart-beat rates of breeding Adélie Penguins has shown that rates increase as helicopters fly in the vicinity of their colonies, even when birds remained on their nest and showed no other signs of stress (Culik 1990). This work suggests that unusually loud noises can result in physiological changes that can be equated with increased stress. It has been speculated that continual exposure to disturbance of this nature, although having little visible effect, may reduce reproductive success. A similar effect has been suggested for Black Brant geese in Alaska where stress from aircraft over-flights might inhibit their ability to complete their moult while maintaining or acquiring the body condition necessary for migration (Taylor 1993).

Habitat loss

Frequent and high levels of disturbance can effectively result in habitat loss. This may be in the form of decreased carrying capacity where an area becomes less used by birds or, at its most extreme, it can occur when birds move away from a disturbed site permanently. An example of the latter is cited by Grubb & Bowerman (1997) where aircraft disturbance caused Bald Eagles to depart an area entirely. Consequently, displaced birds may have to feed at higher densities elsewhere, which may effect food intake due to increased competitive interactions between birds.

Mitigation of aircraft disturbance

Any attempt to reduce the effects of aircraft disturbance, for example by setting tolerance distances or disturbance-free zones, is complicated by the large variation in vulnerability to disturbance. This variability occurs across species and within species, across habitat types and between sites, and where exposure to disturbance causes varying amounts of habituation or facilitation. However, there are certain general principles which may help reduce disturbance in most circumstances. Also, a small number of case histories exist that may provide useful examples of effective mitigation measures under certain circumstances.

Timing

The potentially damaging effects of disturbance are greater for birds at particular times of the year. For example, disturbance is most likely to result in greater mortality of wintering birds in conditions of severe weather when food intake rates are reduced and fat and energy reserves are low. As illustrated above, birds are also very vulnerable to disturbance during the breeding season. Thus if aircraft disturbance can be removed or reduced at these critical times then overall impacts may be greatly reduced. Birds are also more vulnerable to 'unusual' disturbance events, for example unfamiliar aircraft types or unpredictable flight behaviour, and these should be avoided at critical times of the year.

Aircraft type

Certain types of aircraft create more disturbance than others. The existing research suggests that the use of helicopters in particular should be avoided in areas of importance for birds. There is also some evidence that ultra-lights are especially disturbing.

Flight distance, altitude and frequency

In some circumstances the use of zones around sensitive bird areas to restrict aircraft movements may be appropriate. Both lateral and altitudinal restrictions may be beneficial, although distances will vary with species and site. For example management plans for Bald Eagles in North America typically include restrictive buffer zones limiting human activity around nest sites and other key habitat areas such as foraging sites. Grubb & Bowerman (1997) suggest that aircraft would best be excluded from within 600 m of nest sites and key habitat areas during the breeding season. Work by Visser (1986) suggests that an exclusion zone of 1000 m may be required to prevent disturbance of roosting waders and Owens (1977) reports disturbance of Brent Geese up to 1.5 km distance. Turning to altitudinal restrictions, the results of the studies of Snow Geese in Québec and Brent Geese in Essex suggested that flights below 500 m over sanctuaries should be prohibited (Bélanger & Bedard 1990, Owens 1977). The work on Black Brant geese by Ward *et al* (1994) indicates that a flying altitude of at least 610 m is necessary to minimise disturbance. The simulation of helicopter disturbance of Black Brant geese by Miller (1994) predicted that the impact of helicopters could be greatly reduced by flying over 1065 m, minimizing flight frequency and by avoiding the use of larger (and thus noisier) helicopter. Similarly, in relation to flight frequency, Bélanger & Bedard (1990) recommended that human disturbance, particularly aircraft over-flights, should be reduced to less than one event per hour.

No-fly zones

There are two mechanisms for identifying such no-fly zones in the UK. The Civil Aviation Authority (CAA) publishes information on 'Bird Sanctuaries' and the MoD identifies national 'Avoidance Areas'. Both rely on map-based information to warn pilots of the location of large numbers of birds in order to reduce the risk of bird strike. The CAA defines a Bird Sanctuary as an *airspace of defined dimensions within which large colonies of birds are known to breed*. The location of these sanctuaries are listed in the UK Aeronautical Information Publication (AIP), an important reference for all civil pilots, giving details of location, avoidance distances (up to 3 nm) and heights (up to 4000 ft). Pilots are requested to avoid the Bird Sanctuaries during a particular period or during the breeding season. They are also advised to avoid flying at less than 1500 ft above surface level over areas where birds are likely to concentrate, such as offshore islands, headlands, cliffs, inland waters and shallow estuaries. The AIP recognizes that, apart from the danger to flying aircraft, the practice of flying close to breeding birds should be avoided for conservation reasons. However, these warning are only advisory for civil pilots.

The MoD can designate permanent and seasonal Low Flying Avoidance Areas to restrict the use of low-flying military aircraft. These are part of the UK Low Flying System (UKFLS) which aims to spread low-flying activity as widely as possible in order to reduce the burden of disturbance in any one area. Military aircraft are deemed to be low-flying when, in the case of fixed wing aircraft, they are less than 2000 ft above the surface, and for propeller-driven

light aircraft and helicopters, when they are less than 500 ft. Avoidance areas include civil airspace around airports, airfields and glider sites, industrial sites, major built-up areas, stud farms and hospitals. Some bird reserves and sanctuaries are also included, although the list is far from comprehensive and requires a review.

Reducing other sources of disturbance

Finally, in circumstances where it is not possible to reduce or eliminate aircraft disturbance, it may be beneficial to reduce other sources of disturbance present on the site. This requires an integrated approach to controlling disturbing activities such as wildfowling, sailing and public access through temporal and spatial zoning. For example, the designation of refuges from wildfowling disturbance may help reduce the effects of facilitation and thus lessen the impacts of aircraft activity.

Conclusion

As with all forms of disturbance, it is often difficult to identify the effects of aircraft on birds, especially at the lower levels of potentially disturbing activities. Detecting effects is further complicated by the great variation in response of birds to aircraft, depending on a whole range of factors including aircraft type, proximity and frequency of flights and noise levels. Add to this variation the additional factors of flock size, habituation and facilitation, and it quickly becomes apparent that simple generalisations regarding the effects of aircraft cannot be made. This is especially so when consideration is given to the host of other variables that influence bird populations, including food availability, habitat change, competition, predation and weather. However, from the current information on aircraft disturbance the following general points can be made:

- Low-flying helicopters and ultra-lights cause the greatest level of disturbance.
- Low flight altitudes cause most disturbance; flights over sensitive bird areas should be at least 500 m above surface levels, and preferably over 1000 m (especially for helicopters).
- Unpredictable, curving flight lines are more disturbing than predictable, straight flight lines; birds can often habituate to regular and predictable events.
- The impact of aircraft disturbance may be increased if other sources of disturbance effect the same area.
- Cliff-nesting and other colonial seabirds during the breeding season and flocks of waterfowl during the winter are most vulnerable, especially during severe weather conditions.
- No-fly zones should be sought if serious disturbance is apparent.

Any future studies of the effects of aircraft disturbance, as with all forms of potentially disturbing activity, should take into account a range of factors: the intensity, duration and frequency of disturbance; proximity of source; seasonal variation in sensitivity of affected species; whether birds move away and return after disturbance ceases; whether there are alternative habitats nearby; and whether there are additional forms of disturbance. Ideally

work on disturbance effects should include before-and-after studies and experimental controls. However, the flexibility for before-and-after studies rarely exists and often the disturbance is established and on-going. In these circumstances several sites should be studied and as many variables as possible should be measured in order to identify reliable correlations between bird activity and disturbance.

Once an effect has been identified, it is rarely possible to establish an impact on population dynamics and survival without extensive research into the behavioural responses of individual birds. As research of this nature requires significant time and resources it is not always practicable. Where time or resources are constraining it will be necessary to rely on existing research results as presented here to indicate *potential* impacts. Thus, for examples of higher levels of disturbance where an effect has been established, the existing research literature that identifies impacts on populations should be used to reinforce the precautionary approach. However, the evidence for impacts at the lower levels of disturbance is less strong and this requires further research.

References

BAPTIST, H. & MEININGER, P. 1984. Cited in Smit & Visser 1993.

BÉLANGER, L. & BÉDARD, J. 1989. Responses of staging Greater Snow Geese to human disturbance. *J. Wildl. Manage.* 53:713-719.

BÉLANGER, L. & BÉDARD, J. 1990. Energetic cost of man-induced disturbance to staging Snow Geese. *J. Wildl. Manage.* 54:36-41.

BELIËN, E. & BRUMMEN, W. VAN. 1985. Cited in Smit & Visser 1993.

BELL, W.B. 1972. Animal responses to sonic booms. *J. Acoust. Soc. Amer.* 51:758-765

BOER ET AL. 1970 Cited in Smit & Visser 1993.

BROWN, A.L. 1990. Measuring the effect of aircraft noise on sea birds. *Environmental International* 16:587-592.

BURGER, J. 1981. Behavioural responses of Herring Gulls to aircraft noise. *Environmental Pollution* 24:177-184.

BUSNEL, R.G. 1978. Introduction. *In*: J.L.FLETCHER & R.G.BUSNEL, Eds. *Effects of noise on wildlife.* New York: Academic Press: 7-22

CULIK, B., ADELUNG, D. & WOAKES, A.J. 1990. The effect of disturbance on the heart rate and behaviour of Adélie Penguins during the breeding season. *In*: K.R. KERRY AND G. HEMPEL (Eds). *Antarctic ecosystems: Ecological change and conservation.* Berlin: Springer-Verlag: 177-182.

DAELE, D.J. VAN & DAELE, H.A.VAN 1982. Factors affecting the productivity of ospreys nesting in west-central Idaho. *Condor* 84:292-299.

DAVIDSON, N. & ROTHWELL, P. 1993. Disturbance to waterfowl on estuaries. *Wader Study Group Bull. 68.* Wader Study Group.

DAVIS, R.A. & WISELEY, A.N. 1974. Normal behaviour of snow geese on the Yukon-Alaska North Slope and the effects of aircraft-induced disturbance on this behaviour, September, 1973. *In:* W.W.H. GUNN, W.J. RICHARDSON, R.E. SCHWEINSBURG AND T.D.WRIGHT, Eds. *Studies on snow geese and waterfowl in the Northwest Territories, Yukon Territory and Alaska, 1974.* Can. Arct. Gas. Stud. Ltd., Biol. Rep. Series 27.

DUNNET, G.M. 1977. Observations on the effects of low-flying aircraft at seabird colonies on the coast of Aberdeenshire, Scotland. *Biol. Conser.* 12:55-63.

ELLIS, D.H. & ELLIS, C.H. 1991. Raptor responses to low-level jet aircraft and sonic booms. *Environmental Pollution* 74:53-83

EVANS, M.E. 1994. *Microlights and geese: a study of the effect of microlights operating from Tarn Farm, Cockerham, upon wintering Pink-footed Geese.* English Nature and the Ribble Valley Microlight Club.

FLETCHER, J.L.1988. Review of noise and terrestrial species: 1983-1988. Special sources and issues. *Proc. 5th International Congress on noise as a public health hazard,* Part 2:181-183; 1988. Stokholm: Swedish Council for Building Research.

GLIMMERVEEN, U. & WENT, W. 1984. Cited in Smit & Visser 1993.

GRUBB, T.G. & BOWERMAN, W.W. 1997. Variations in breeding Bald Eagle responses to jets, light planes and helicopters. *J. Raptor Res.* 31(3): 213-222.

HOOIJMEIJER, J.C.E.W. 1991. Cited in Smit & Visser 1993.

HEINEN, F. 1986 cited in Smit & Visser 1993.

HILL, D., HOCKIN, D., PRICE, D., TUCKER, G., MORRIS, R. & TREWEEK, J. 1997. Bird disturbance: improving the quality and utility of disturbance research. *Journal of Applied Ecology.* 34: 275-288.

JENSEN, K.C. 1990. *Responses of moulting Pacific Black Brant to experimental aircraft disturbance in the Teshekpul Lake Special Area, Alaska.* Ph.D. thesis, Texas A&M Univ., College Station. (Cited in Smit & Visser 1993 and Miller 1994).

KOOLHAAS, A., DEKINGA, A. & PIERSMA, T. 1993. Disturbance of foraging Knots by aircraft in the Dutch Wadden Sea in August-October 1992. *In:* N. DAVIDSON & P. ROTHWELL. 1993. Disturbance to waterfowl on estuaries. *Wader Study Group Bull. 68.* Wader Study Group.

KÜSTERS, E. & RADEN, H. VON 1986. Cited in Smit & Visser 1993.

MADSEN, J. 1985. Impact of disturbance on field utilization of pink-footed geese in West Jutland, Denmark. *Biol. Conserv.* 33:53-63.

MEER, J. VAN DER. 1985. Cited in Smit & Visser 1993.

MILLER, M.W. 1994. Route selection to minimize helicopter disturbance of moulting Pacific Black Brant: a simulation. *Arctic* 47:341-349.

MOSBECH, A. & GLAHDER,C. 1991. Assessment of the impact of helicopter disturbance on moulting Pink-footed Geese and Barnacle Geese in Jameson Land, Greenland. *Ardea* 79:233-238.

MYERRIECKS, A.J. 1960. *Comparative breeding behaviour of four species of North American herons.* Nuttal Ornithol. Club Pub. No. 2. Cambridge, Mass.

MULLEN, P.D. 1985. *Reproductive ecology of Ospreys in the Bitterroot Valley of Western Montana.* MA Thesis. University of Montana, Missoula.

OWENS, N.W. 1977. Responses of wintering Brent Geese to human disturbance. *Wildfowl* 28:5-14.

PALMER, R.S. 1976. *Handbook of North American Birds, VI.* Yale University Press, New Haven, CT.

PLATT, J.B. 1977. *The breeding behaviour of wild and captive Gyrfalcons in relation to their environment and human disturbance.* Ph.D. dissertation, Cornell Univ., Ithaca, NY U.S.A.

SCHREIBER, E.A & SCHREIBER, R.W. 1980. Effects of pulse noise on seabirds of the Channel Islands. *In*: Ed. JEHL, .J.R. Jr. & COOPER C.F. *Potential effects of Space Shuttle sonic booms on the biota and geology of the California Channel Islands: Research Reports.* Centre for Marine Studies, San Diego St. Univ., Tech. Rep. 80-1:138-62.

SMIT, C. & VISSER, G.J.M. 1989. Cited in Smit & Visser 1993.

SMIT, C. & VISSER, G.J.M. 1993. Effects of disturbance on shorebirds: a summary of existing knowledge from the Dutch Wadden Sea and Delta area. *In:* N. DAVIDSON & P. ROTHWELL. 1993. Disturbance to waterfowl on estuaries.*Wader Study Group Bull. 68.* Wader Study Group.

TANIS, J.J.C. 1962. Cited in Smit & Visser 1993.

TAYLOR, E.J. 1993. *Molt and energetics of Pacific black brant on the Arctic Coastal Plain, Alaska.* PhD. thesis. Texas A&M University, College Station, Texas.

TRIMPER, P.G, STANDEN, N.M., LEONARD, M.L., LEMONS, D., CHUBBS, T.E. & HUMPHRIES, G.W. 1998. Effects of low-level jet aircraft noise on the behaviour of nesting osprey. *Journal of Appl. Ecol.* 35:122-130.

VANA-MILLER, S.L. (1987). Habitat suitability index models: osprey. *US Fish Wildlife Service Biological Report*. 82.

VISSER, G. 1986. Cited in Smit & Visser 1993.

WATSON, J.W. 1993. Responses of nesting Bald Eagles to helicopter surveys. *Wildl. Soc. Bull.* 21: 171-178.

WARD, D.H., STEHN, R.A. & DERKSEN, D.V. 1994. Responses of staging Brant to disturbance at the Izembek Lagoon, Alaska. *Wildl. Soc. Bull.* 22:220-228.

WERKGROEP WADDENGEBIED UTRECHT 1975. Cited in Smit & Visser 1993.

WHITE-ROBINSON, R. 1982. Inland and saltmarsh feeding of wintering Brent Geese in Essex. *Wildfowl* 33:113-118.

ZONFRILLO, B. 1992. The menace of low-flying aircraft to Ailsa Craig. *Scottish Bird News* 28:4

Produced by Allan Drewitt, Birds Unit, 2 August 1999

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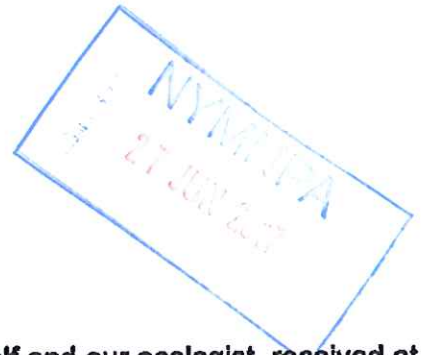


Date: 5th June 2017

Dear Mr. Walker,

Thank you for your letter to myself and our ecologist, received at this office on 5th June 2017 asking for details of the location of Goshawk nests in the area around South Moor Farm.

Whilst I acknowledge your personal commitment to keep the information confidential we have to consider your request for information under the provisions in the Environmental Information Regulations. This means that any information we do provide to you is also placed in the public domain, whether or not the disclosure is publicised.

After carefully assessing the issues I consider that the disclosure of recorded information held by the Forestry Commission about the location of Goshawk nests would adversely affect the protection of the environment to which the information relates, Regulation 12(5)(g). This means that I will not provide the recorded information we hold on Goshawk nests to you.

This exemption is subject to the public interest test, Regulation 12(1). However, it is inherent in an adverse effect exemption that disclosure is unlikely to be in the public interest. Whilst disclosure may reduce the likelihood of disturbance from flight activity, which you say is limited to 28 days per year, placing the details of goshawk locations in the public domain to any extent is likely to put the nests at considerable risk, especially in a relatively remote yet publically accessible area. This has led me to conclude that, on balance, the decision to apply the exemption to disclose can be sustained through the public interest test.

I have tried to deal with your request as fully as possible. However, should you wish to complain about the way your request has been handled please contact:

Forestry Commission
Director England
620 Bristol Business Park
Coldharbour Lane
Bristol
BS16 1EJ

Complaints regarding non-compliance with the requirements of the open information legislation should initially be made to the Forestry Commission itself. We aim to resolve any complaints with you directly. However, should the matter fail to be resolved, you may make an appeal to the Information Commissioner's Office.

Further information of the role of the Information Commissioner and guidance on FOI/EIR can be found on the Commissioner's web site: www.ico.gov.uk or by calling the helpline:

Yours sincerely,

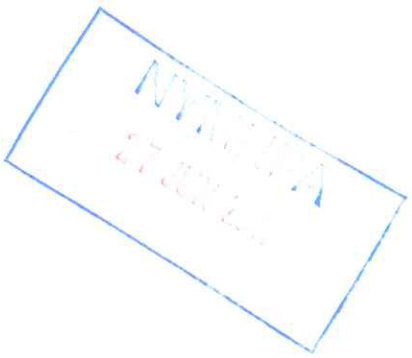
Mrs. Elizabeth Walton
Area Land Agent

CHANGE OF USE OF LAND TO FORM 1 NO GRASS RUNWAY AND CONSTRUCTION OF PILOT/REST ROOM BUILDING (REVISED SCHEME FOLLOWING DISMISSAL OF APPEAL OF NYM/2015/0781/FL) – SOUTH MOOR FARM, LANGDALE END, SCARBOROUGH, YO13 0LW

STATEMENT OF CASE

PREPARED FOR

MR R WALKER
SOUTH MOOR FARM
LANGDALE END
SCARBOROUGH
YO13 0LW



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June 2017

Appeal Against:	The decision by North York Moors National Park Authority to refuse planning permission for change of use of land to form 1 No grass runway and construction of pilot/rest room building.
The Appellant:	Mr R Walker
Site Location:	South Moor Farm, Langdale End, Scarborough, YO13 0LW
LPA Reference:	NYM/2016/0817/FL
Date of Submission.:	24 November 2016
Date of Decision:	17 February 2017

1. INTRODUCTION

Planning permission was applied for and refused by North York Moors National Park Authority for the change of use of land to form 1 No grass runway and construction of pilot/restroom building. The reason for refusal is as follows:-

1. The Local Planning Authority considers that it cannot be satisfactorily demonstrated that the bird species, notably Goshawk (Schedule 1, Wildlife and Countryside Act) and Nightjar (Section 41, NERC Act Annex 1, EU Birds directive) would not be adversely affected by the proposed development, or that it would not have a significant effect on the interest features of the North York Moors Special Protection Areas (SPAs), because flights to and from the proposed airstrip could potentially cause disturbance to the species for which the special protection area is designated. The proposal is therefore contrary to the statutory purposes of the National Park Authority where conservation of wildlife is explicit, and Core Policies A and C of the Local Development Plan. Furthermore, the failure to demonstrate that protected species would not be harmed runs contrary to national policy contained in the online National Planning Guidance and Chapter 11 of the NPPF which states that conservation of wildlife is important and that it is essential for the presence or otherwise of protected species, and the extent that they may be affected by a proposed development to be established before planning permission is granted.

2. BACKGROUND

South Moor Farm extends to 40 hectares (100 acres) and was purchased by Mr Walker at auction in 1993 after it fell into a state of disrepair and had been unoccupied for some years. Since purchase the appellant, Mr Walker has restored the overall appearance of the holding, investing £100,000 on renovating the buildings, walls, fences and grazing land. Sheep and cows currently graze the land.

Mr Walker diversified the business by opening a bed and breakfast business, as well as the keeping of livestock approximately 14 years ago. Equipment has been installed for beeline Broadband which provides fast internet connections to local residents as well as themselves.

Mr Walker has held a private pilot's licence since 2005 and has his own aircraft which is parked at South Moor Farm. He currently uses the aircraft under 28 day per year permitted development rights (i.e. approximately once per fortnight).

This is a reapplication following three appeal refusals which originally included a proposed storage building and an ancillary runway. The building has now been removed from the application as has the ancillary runway. The third appeal failed only on ecology grounds as the Inspector considered that the application was not

accompanied by a wildlife survey they she could not be sure of the extent of likely harm to protected species, if any.

The Planning Statement submitted with the application details the history of the site.

Previous Inspectors accepted that there would be no noise issues or impact on heritage assets from the proposed development, nor would the development harm the special character of the National Park. Partial costs for the previous 2 appeals have been awarded against the Local Planning Authority for refusing on the same grounds which the Previous Inspector had already dealt with and felt were acceptable.

The application to be dealt with at this appeal, failed only on the fact that the Local Authority did not consider that the bird survey accompanying the application satisfactorily demonstrated that Goshawks and Nightjar would not be adversely effected by the proposal. The original survey was undertaken in October 2016 which is outside the main bird breeding season. During October it is not possible to confirm the presence or absence of nightjar or goshawk as breeding species.

A further updated Bird Assessment by Quants Environmental Ltd has been undertaken with the Vantage Point Survey for goshawks taking place during April 2017, which is the optimal time of year for undertaking surveys of potential goshawk breeding areas. The full Assessment is contained at Appendix 1.

It should be noted that the Local Planning Authority have not offered any new research to prove any birds would be affected, or that the proposal would have a significant effect on the interest features of the North Yorkshire Moors Special Protection Areas (SPA's). The nearest boundary of the SPA is some 6 km away.

In addition there are no flying restrictions to protect birds in the North York Moors National Park. The area is an Area of Intense Aerial Activity due to low military flying, gas pipeline inspection helicopters and electricity line inspection helicopters.

3. PLANNING POLICY

The decision notice quotes various Chapter 11 of the NPPF – Conserving and Enhancing the Natural Environment in their reason for refusal as well as Core Policies A and C of the Local Development Plan.

Core Policy A

The Local Development Framework seeks to further the National Park purposes and duty by encouraging a more sustainable future for the Park and its communities whilst conserving and enhancing the Park's special qualities. Priory will be given to:-

1. *Providing a scale of development and level of activity that will not have an unacceptable impact on the wider landscape or the quiet enjoyment, peace and tranquillity of the Park, no detract from the quality of live of local residents or the experience of visitors*

2. *Providing for development in locations and of a scale which will support the character and function of individual settlements.*

3. *Maintaining and enhancing the natural environment and conditions for bio diversity and geodiversity.*

4. *Conserving and enhancing the landscape, settlement, building features and historic assets of the landscape character areas.*

5. *Applying the principles of sustainable development and energy use to new development.*

6. *Enabling the provision of a choice of housing that meets the needs of local communities in terms of type, tenure and affordability.*

7. *Strengthening and diversifying the rural economy and providing tourism based opportunities for the understanding and enjoyment of the Park's special qualities.*

8. *Enabling access to services, facilities, jobs and technology whilst minimising the environmental impacts of transport."*

Core Policy C – Natural Environment, Biodiversity and Geodiversity

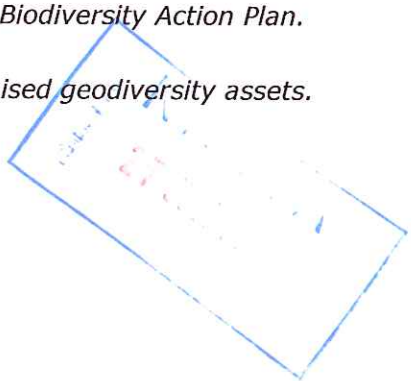
"The quality and diversity of the natural environment of the North York Moors National Park will be conserved and enhanced. Conditions for biodiversity will be maintained and improved and important geodiversity assets will be protected. Protected sites and species will be afforded the highest level of protection with priority also given to local aims and targets for the natural environment.

All developments, projects and activities will be expected to:

1. *Provide an appropriate level of protection to legally protected sites and species.*

2. *Maintain, and where appropriate enhance, conditions for priority habitats and species identified in the North York Moors Local Biodiversity Action Plan.*

3. *Maintain and where appropriate enhance recognised geodiversity assets.*



4. *Maintain and where appropriate enhance other sites, features, species or networks of ecological or geological interest and provide for the appropriate management of these.*

5. *Maximise opportunities for enhancement of ecological or geological assets, particularly in line with the North York Moors Local Biodiversity Action Plan. Tees Valley and North East Yorkshire Geodiversity Action Plans and the regional Habitat Enhancement Areas.*

6. *Mitigate against any necessary impacts through appropriate habitat creation, restoration or enhancement on site or elsewhere."*

4. GROUNDS OF APPEAL

James Hodson of Eco Check Consultancy considered the ecological impact of the proposed development with the previous applications and appeals, in particular the likely impact on birds in the adjacent North York Moors Special Protection Area (SPA) and the adjacent SSSI, and commented as follows:-

"A site check was undertaken by Eco Check Ltd which shows that there are no SPA's or SSSI's within 2 km of the closest boundary of the proposed landing strip. The nearest boundary of designated nature conservation sites are Troutsdale and Rosekirk Dale Fens SSSI situated approximately 2.4 km to the south and Bride Stones SSSI situated approximately 2.6 km to the west. Furthermore the closest boundary of the North York Moors SPA is approximately 6 km to the north west.

It is in our opinion that neither of the sites could be described as adjacent to or even close to the proposed development as stated and the coniferous woodland surrounding the proposed landing strip is likely to attenuate the majority of the noise associated with plane taxiing, take-offs and landings. It is presumed that there will be no low level flying across the above designated sites. To the contrary there is already low level military aircraft operating in the area and as such there is unlikely to be any significant increase in disturbance to birds as a result of the proposed development."

The Inspector in his conclusions on the first appeal stated:-

"There are two SSSIs, about 2.4 km and 2.6 km from the appeal site – which hardly qualifies for the adjective "adjacent; and the nearest boundary of the SPA is some 6 km away."

In the case between the Secretary of State for Communities and Local Government and the Secretary of State for Transport and Inspector, K D Barton BA(Hons) DipArch DipArb RIBA FCIArb in respect of an application at London Ashford Airport Lydd, the effect on birds, peace and tranquillity for the proposed construction of a runway

extension and a 'starter extension' to the north/south runway was considered – APP/L2250/V/10/2131934 and 2131936.

The proposed development at Lydd is a much bigger operation than the proposal at South Moor Farm, however the conclusions on effects on birds and peace are tranquillity are relevant as follows. Lydd is also a commercial airport, not a private aerodrome.

Paragraph 23, Ornithology states:-

"The secretaries of State agree with the Inspector's reasoning and conclusions on ornithology at IR14.6.1-14.6.57 and IR15.1.9-15.1.13. They have carefully considered the formal advice of the NE and the case made by the RSPB to the Inquiry, but the Secretaries of State share the Inspectors conclusion (IR15.1.13) that there is little evidence that there would be any, never mind a significant decline in size, distribution, structure or function of the population such as to require an appropriate assessment (AA). Overall, having regard to the requirements on them as the competent authority in respect of the Conservation (Natural Habitats) Regulations 2010, the Secretaries of State are satisfied that they can proceed to grant permission of the applications before them without first being required to carry out an AA.

Paragraph 32, Landscape, Tranquillity and Noise (Quality of Life) states:-

"For the reasons given by the Inspector at IR14.10.1.1-14.10.28 and IR15.1.19-15.1.22 the Secretaries of State agree with his conclusion at IR14.10.29 that, given the limited harm to the wider population and the lack of significant harm to Greatstone School in terms of noise, there is no reason to refuse planning permission in terms of landscape and visual assessment, cultural heritage, noise or any combination of factors that contributes towards the concept of tranquillity and the quality of life. They also agree that there is little evidence that there would be any significant effect on the visitor experience along the western boundary of the RSPB Reserve (IR15.1.22).

Airfields do not necessarily impact on birdlife, i.e. the extract below is from the Visit Britain Website about the aerodrome at Stowe Maries in Essex where part of the BBC series "The Great British Year" was filmed. The airfield operations which are still ongoing have not affected local wildlife, which is encouraged at the site, in particular owls.

"Stow Maries Aerodrome is a Great War Aerodrome set in the rural Essex countryside.

.....

Established in 1916, it was home to 37 (Home Defence) Squadron, Royal Flying Corps. The Squadron was charged with the eastern aerial defence of the capital. Abandoned in 1919, the aerodrome has most of the original buildings still standing. The aerodrome hosts 'fly ins' giving you the opportunity to see these wonderful bi-planes

in flight. In addition to its historical significance the site is a haven for wildlife and is currently featured on the BBC wildlife programme The Great British Year."

The Inspector in his decision stated:-
"If there would be no unduly harmful effects for human beings or horses, it seems highly unlikely that there would be such effects for goshawks or nightjars. In short, the proposal raises no material conflict with Core Strategy Policy 3."

In the decision for the latest appeal, the Inspector concluded that as the application was not accompanied by a wildlife survey she could not be sure of the extent of likely harm, if any, could occur to protected species.

With the application the Local Planning Authority considered that the appellant had not satisfactorily demonstrated that the bird species, notably Goshawk (Schedule 1, Wildlife and Countryside Act) and Nightjar (Section 41, NERC Act Annex 1, EU Birds directive) would not be adversely affected by the proposed development, or that it would not have a significant effect on the interest features of the North York Moors Special Protection Areas (SPAs), because flights to and from the proposed airstrip could potentially cause disturbance to the species for which the special protection area is designated.

The initial Bird Assessment by Quants Environmental submitted with the application was undertaken in October 2016, which is outside of the main bird breeding seasons. It was not possible to confirm the presence or absence of nightjar and goshawk as breeding species. Whilst this report did not prove birds will not be affected, it did offer procedures to mitigate any affect and it should be noted that the Local Planning Authority did not offer any new research to prove any birds would be affected.

North and East Yorkshire Ecological Data Centre (NEYEDC) was contacted for a search of bird records within a 1 km radios of the sub 500 ft flight path and several attempts were made to contact the Forestry Commission to obtain information regarding nightjar and goshawk in Langdale Forest and the wider area. The Forestry Commission Ecologist confirmed that Dalby Forest supports a fairly stable population of goshawk however no detailed information on the locations of breeding sites were made available to Quants Environmental.

The updated Bird Assessment contains information on a goshawk vantage point survey undertaken during April 2017 which is the optimal time of year for undertaking surveys of potential goshawk breeding areas. The survey was undertaken during optimal weather conditions with excellent visibility.

Nightjar is known to occur within the vicinity of the proposed runway with four patches of potentially suitable breeding habitat within 500 metres of the proposed sub 500 ft flight path. The ecology of nightjar, including its nocturnal behaviour and its use of crypsis to avoid detection, suggests that the species may be relatively tolerant of daytime flights of light aircraft.

Birds appear to become better habituated to aircraft flight activities where the flights are 'regular' in terms of their occurrence, type of aircraft and flight path. Nightjars should not be affected if a condition regarding flying near dusk and dawn is observed.

The report concluded that up to 4 pairs of breeding goshawk could occur within 500 metres of the proposed sub 500 ft flight path. Goshawks are likely to be resident in the general area year round, although above canopy flight activity is most evident between Mid March and late April; with the birds spending the majority of their time below the canopy.

Forestry Commission Bulletin 81: Goshawks, Their Status, Requirements and Management states:-

"It is part of a landowner's responsibility to minimise disturbance to breeding Goshawks. Disturbance can be caused by forest operations which are too close to nests or by carelessly advertising the presence of nesting arears, which may lead to disturbance from bird watchers or more seriously, the theft of eggs and chicks. During the breeding season, which extends from February to July inclusive it is recommended that no forest operations or other activities should be undertaken within a 400 m (50 ha) of an occupied nest. Birds should never be internally flushed from the nest. When goshawks are present in a forest, it is advisable to check all areas that are about to be clear felled for signs that would indicate an occupied nest".

The report goes on to that that at the time of writing which was within the goshawk breeding season, the Forestry Commission were undertaking thinning operations in the woods to the north of South Moor Farm and within 400 metres of an indicative likely goshawk breeding area. This would suggest that there is no known goshawk nest in the immediate area.

In addition the advice from the Forestry Commission recommends that no activities should be undertaken within a 400 metre radius of an occupied nest from February to July inclusively, therefore the fact that none of the footpaths, cycle paths and forest roads which criss cross the entire survey area (no areas being more than 400 metres from the site) are closed to the public during this time would suggest that either goshawk nests are not present in the survey area or they are not significantly disturbed by walkers, mountain bikers or vehicles using this area.

Although there is no known published research on the effects of aircraft on goshawk there is evidence that the species is highly tolerable to anthropogenic disturbance, particularly in continental Europe. There is clear evidence from webcam monitored goshawk nests that goshawks exhibit tolerance of aircraft passing nearby.

The report concludes that *"Based on all available information, it is considered that the proposed aircraft light activity is not likely to result in significant disturbance of*

goshawks provided that the flight activity is undertaken responsibly, e.g. direct in and out flights rather than circling and/or erratic flight activity at a low altitude."

There are no training flights nor practice circuits or aerobatics overhead to be undertaken by pilots at South Moor Farm.

The report also suggested the appellant write to the Forestry Commission requesting the location of any Goshawk nests so that flight paths could be modified to give maximum clearance if necessary. Although the appellant has followed advice and has written twice, the Forestry Commission response is a refusal to give any information, see letter at Appendix 2.

It can be concluded that with suitable mitigation measures in place as suggested by a qualified ecologist, there is no reason why the development cannot take place. The Local Planning Authority have not provided any evidence to the contrary.