The Monitoring and Management of Gulls on Commercial and Industrial Buildings in the Vicinity of Norwich International Airport

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1. Introduction

This document was produced to produce an effective and consistent approach to the issue of roof-nesting and roosting gulls on commercial and industrial buildings near UK airports.

Although gulls, mainly lesser black-backed (*Larus fuscus*) and herring gulls (*Larus argentatus*) have nested on rooftops in the UK for many decades, the habit has spread considerably in recent years and significant rooftop colonies can now be found throughout the UK. The vast majority of these colonies are on large commercial buildings with extensive roof areas such as warehouses, power stations, factories and aircraft hangars. Despite misleading guidance on the subject, these birds are not confined to flat roofs, and in fact the majority are on rooftops with sloping surfaces – although shallow pitched roofs are preferred. In addition to roof-nesting, some (and typically larger, flatter and more open-aspect) rooftops hold large numbers of roosting gulls (and these roosts may hold thousands of birds

UK airports, particularly in areas where roof-nesting gulls are established, should require a bird hazard management plan to mitigate any potential bird strike risks that may be associated with gulls either nesting or roosting on the roof areas of any new commercial/industrial development in the vicinity of the airport. This document describes the potential risks and suggests robust and cost-effective means to completely mitigate these risks.

Gulls are the most significant family of birds in terms of UK bird strikes, both in terms of the total number of incidents reported (Fig 1) and the number of damaging bird strikes that have occurred. Although aircraft accidents caused by bird strikes are rare, in the UK and Europe gulls have been the culprits in a significant majority of bird strike accidents. They constitute a particular hazard because they are medium to large in size (the average weight of the commonest UK species vary from 280g to 1.65kg (although the latter, the great black-backed gull is rather rare in UK bird strikes and the more common herring gull and lesser black-backed gull are nearer to 1kg in average weight), are highly mobile, occur in flocks and have an unfortunate habit of settling on airport runways in flocks.

UK gull populations have changed in numbers, distribution and behaviour in recent years and of specific concern is a significant increase in roof-nesting populations of herring gulls and lesser black-backed gulls (virtually all roof—nesting colonies contain both species) and the less well understood phenomenon of roosting on rooftops (this often involves black-headed gulls and common gulls, which may or may not be mixed with their larger relatives). In both cases they are particularly fond of using roofs with a large surface area of either flat or shallow-pitched construction (although they may nest on ledges, vents, window frames, etc. on even steeply pitched roofs on occasion). For nesting, gulls in the UK have a strong preference for old corrugated asbestos-reinforced concrete roofs (particularly when they begin to grow moss and other vegetation), roofs with gravel or shingle laid over the impermeable surface and "green roofs" but they will also nest on metal sheet roofs or on plastic membrane roofs (where they may need to build over lighting conductor strips to give their nests some anchorage). Gulls may roost on roofs also used for nesting, or they may roost on roofs where they have never bred. They typically choose a large or very large wide-open aspect continuous roof area for roosting and in this case have strong preference for flat or near-flat roofs. Nesting colonies may hold anything from a few pairs to hundreds of pairs, and the largest roosts hold hundreds or thousands of birds. All UK airports are concerned that any further increase in the local breeding and/ or roosting gull population may have an adverse impact on the local bird strike hazard.

Reported birdstrikes

by bird family and birdstrike status (Top-20) 2012-2016



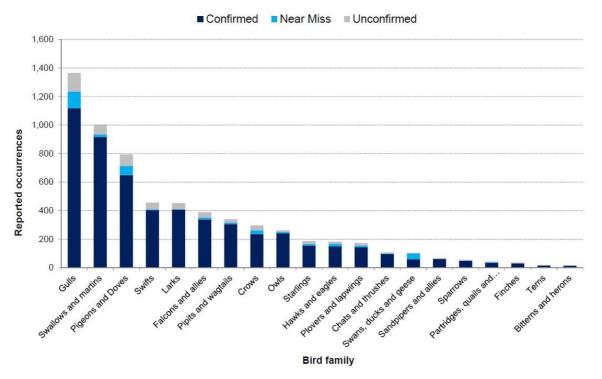


Figure 1: CAA Breakdown of UK Birdstrikes 2012-16. Source: Civil Aviation Authority.

2. Monitoring and Control Measures

Nesting Gulls

The species of concern at the time of writing are herring gulls and lesser black-backed gulls. Both arrive on their breeding sites in late winter and early spring, with the first herring gulls often on site in February, lesser black-backed gulls tending to arrive later because many of them leave the UK in the winter months, returning in early spring to breed. The first herring gulls' nests may have full clutches of (averaging three eggs) by late April, and the majority of lesser black-backed gulls lay in May. If early clutches are taken, repeat clutches may be laid as late as early July (both species will almost invariably replace on lost clutch and many will lay a third replacement clutch). Incubation takes around 30 days before chicks' hatch, at which point the adult birds become significantly more aggressive toward people who approach the nest site.

The removal of herring gull and lesser black-backed gull nest and eggs requires a licence issued by Natural England. At the time of writing (2019) the relevant licence is WML-CL12ⁱ, the class licence to kill or take certain species of wild birds to preserve air safety. This licence includes all three of the gull species that are likely to be found roofnesting in this area. At this location the airport may agree to extend the cover of its Class Licence to the entire site, but this will require that any personnel who carry out gull nest removal work attend a briefing where the terms and conditions of the licence will be explained, and there will also be a legal requirement to keep full records of any nests and eggs removed and to pass those records to the airport. Please note that these licences are renewed annually, reviewed regularly and are amended with some regularity. The relevant website should be checked annually to check for any relevant changes. Under the Wildlife & Countryside Act 1981 (as amended) ignorance of the current state of the law is not accepted as a defence.

The best way to control roof-nesting gull is to "nip the problem in the bud" by initiating control measures as soon as any breeding attempt is made. In this way we hope to persuade the birds that the site is an unsafe nesting site and to move elsewhere. Once a gull breeding colony becomes established on a site it may take many years and considerable effort to displace it, even if no successful nesting is permitted. In order to ensure that no gulls breed

at this site it will be necessary to carry out inspections of the entire surface of the roof and terrace areas at weekly intervals beginning in mid-April. Be aware that while most nests are easily found, some may be tucked into niches, under pipes, etc. Gulls will usually give a very clear sign that a roof is occupied by flying around overhead and calling. They may also "dive-bomb" a person near a nest and use the rather unpleasant anti-predator tactic of attempting to defecate on the intruder during this diving "attack." They rarely strike a human, but it does occasionally occur and unless head protection is worn they may draw blood. Most strikes come from behind — they aim for the back of the head, and the main injury is from tripping or falling while trying to avoid an attacking bird. Although risk assessments and the issue of appropriate Personal Protective Equipment is the employer's responsibility, a hard hat or bump cap is highly recommended, as is some form of eye protection (not for the risk of being pecked in the eyes, but accidental impact if you turn to face the bird or the risk of getting gull faeces in your eyes). Gloves should always be worn when handling gull nests and eggs as many of them carry potentially harmful bacteria due to their habit of feeding on waste, decomposing animal remains, etc. and nests may contain very sharp objects.

If no nests are found in any year by the beginning of June, then inspections may be discontinued for that year. If any nest if found, repeat weekly inspections should continue at least until the second week of July.

Because of the very close proximity to the airport, if any sign of breeding gulls is found, the airport should be contacted before any action is taken. This is to allow the airport to alert its airside staff to monitor whether any disturbed birds move onto the airport. The airport may request a delay before action is commenced in order to protect vulnerable aircraft movements.

If any nest is found – whether it contains eggs or not – it should be picked up (a shovel is a useful tool to avoid handling the material directly) and dropped into a heavy-duty plastic sack for disposal. Gull nests may contain broken glass, pieces of wire and other sharp objects and should be handled accordingly (and appropriate gloves chosen with this in mind). If any chicks are fond on the roof areas it is an indication of a significant failure, as the eggs take around a month from laying to hatching. The Class Licence allows the humane culling of gull chicks, but this an unpleasant task and should be avoided by diligent searching for nests and remove of nests and eggs well before any eggs hatch.

Records of all roof inspections are to be made and the results (including if nothing is found) recorded. If any nest(s) or eggs are removed these should be recorded and reported to the airport for the airports annual licence return.

Roosting Gulls

Gulls may roost on rooftops at any time of the year, and if there are roof—nesting colonies in the area the off-duty birds, non—breeding birds and failed breeders will often form a substantial roost on a rooftop area. The largest rooftop roosts form in the winter months, and the largest of these may contain more than a thousand birds. Most rooftops will never be used for roosting, some are occasionally used and others may be spontaneously deserted and the roost may shift to another rooftop in the area. Where available, expansive flat membrane covered roofs are favoured over all other roof designs. Most 'natural' gull roost are on open water, where they can be seen arriving from mid-afternoon onward but at most rooftops most (or all) the birds arrive in complete darkness, often around midnight.

Evidence of roosting gulls using a rooftop is often discovered in the form of a substantial accumulation of bird droppings, feathers, occasional dead gulls and miscellaneous food remains (for example, chicken bones are very common) on the rooftops. Monitoring of a roof area for roosting gulls may take the form of regular (weekly) inspections in darkness or inspection in daylight specifically looking for the debris associated with roosting gulls (as mentioned above). If any sign of roosting gulls is found then a campaign of managed night-time disturbance will be required. The airport should be contacted ahead of any such action and they may request that the work takes place at a certain time (or times) to avoid possible conflict with aircraft movements. Roost dispersal typically only requires a person to walk the roof area throughout the area where the gulls are roosting with a bright and wide beam portable lamp and the gulls will take flight as soon as they are illuminated. There is no risk of being harassed by roosting gulls – they may fly around overhead calling, but there will be no aggression. It may be necessary to carry out this action several times per night for several consecutive days before the habit is broken,

but this is usually sufficient to displace a roost. It should be stated, however, that there are a several alternate large rooftops in the immediate area that gulls could simply move onto when displaced from this site with no net change in the number of roosting gulls in the area. This should be avoidable by coordinating with other building owners on the site. If after several days of attempting to disturb the roost the birds continue to return, then contact the airport (Airfield Operations) for advice. Rooftop gull roosts can invariably be displaced without resorting to lethal action.

Although there may be a temptation to buy more of the plethora of alleged "bird scarers" on the market, with a very few exceptions they are usually ineffective against gulls (and other birds), particularly in the long term, and the devices that may work may make the gull hazard worse by lifting large numbers of birds throughout the local area in panic. Always ask for advice before considering any method not described above.

3. Performance Indicators (Targets)

The performance targets for acceptable delivery of this gull monitoring and management programme are: -

Bird Activity	Target Numbers	Comments
Nesting herring gulls, lesser black- backed gulls and/or great black- backed gulls.	Zero	No eggs are to be allowed to reach the hatching stage before removal. Any discovery of gull chicks will be taken to be a clear failure of monitoring and/or nest removal.
Roosting gulls	Zero	Gulls may attempt to roost on the roof areas, but dispersal efforts should begin as soon as any sign of gull roosting is discovered. A roof littered with gull droppings, feathers and gull-related debris will indicate a failure.
Loafing gulls	<10	It is inevitable that some gulls will occasionally settle on this and every other roof in the area. Any accumulation of tens of birds and, particularly, continuous presence of gulls on the roof should initiate disturbance measures. If gulls repeatedly perch on specific areas (roof edges, handrails, etc., then the installation of anti-perching spikes (use the gull specific models) may be useful.

Ongoing Monitoring and Obligations.

- 1. On and during occupation it is essential that the Occupier select a chosen person(s) / company to liaise directly with the airport (Airfield Operations) to be informed fully of procedures to satisfy this requirement. This will include briefing of how, when and what to look for when monitoring gull presence and how best to manage the process. A continuous dialect between Occupier and Airport is required to ensure this process is undertaking to a satisfactory outcome.
- 2. The airport will require records to be forwarded either routinely or on request and may carry out site visits to verify that the commitment to manage gulls on the site is being fully delivered. This gull

management programme is required to continue for the operational life of the building unless the airport withdraws the requirement.

3. As part of ongoing maintenance and cleaning of the roof areas, any netting and mesh protection measures are to be routinely inspected for damage and repaired as necessary.

ⁱ https://www.gov.uk/government/publications/birds-licence-to-kill-or-take-them-for-air-safety-purposes