

Quartz Project Services

Box 4 - Manchester Airport

Bird Hazard Management Plan

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RSK biocensus
EXPERTS IN ECOLOGY

RSK GENERAL NOTES

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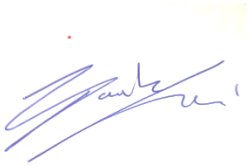
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1.0 INTRODUCTION

1.1 Overview

1.1.1 RSK Biocensus has been commissioned by Quartz to prepare a Bird Hazard Management Plan (BHMP) for the occupation phase of a new aircraft hangar at Manchester Airport. A full planning application (ref: 136879/FO/2023) for the erection of a new aircraft hangar (7,845m² gross internal floor area) with associated parking, access, and landscaping, following demolition of existing buildings, was approved by Manchester City Council on 1st December 2023.

1.1.2 This consent was subject to a number of conditions, including the preparation of a BHMP (Condition 18 - see below). This BHMP has therefore been produced to discharge this planning condition:

Condition 18: *Prior to the occupation of the development hereby approved, a Bird Hazard Management Plan shall be submitted to and approved by the City Council as local planning authority. The approved management plan shall be implemented and remain in-situ in accordance with the details contained within it.*

Reason *- In the interests of aerodrome safeguarding, pursuant to Policy DM2 in the Manchester Core Strategy.*

1.1.3 The objective of the BHMP is to identify and manage the attractiveness of the new development at Manchester Airport to bird species during occupation of the Site. Furthermore, this BHMP aims to minimise the potential problems associated with high levels of bird activity the development could cause given its proximity to aerodrome activity. The primary goal of this plan is to reduce the potential for bird strikes on aircraft and ensure the safety of personnel, both on-site and in the surrounding areas.

1.1.4 This report is written in the standardised approach suggested in The Civil Aviation Authority's Advice note 8: - "Potential Bird Hazards from Building Design". This advice note is included in *Appendix A* of this report.

1.1.5 The BHMP sets out management and monitoring plans to decrease the attractiveness of the development site to specific bird species, thus limiting bird activity in the immediate area and abating the occurrences of problems associated with bird activity near airports.

1.1.6 This plan will become active with immediate effect. It will be active in perpetuity and is tied to the land. Should the site become vacant, the obligations within the BHMP will remain with the site owner.

1.1.7 Visits by representatives of Manchester Airport to the site will be allowed to assess the effectiveness of this plan. If any bird monitoring or prevention measures are deemed ineffective, this plan will be reviewed and revised by an ornithologist.

1.2 Location and Landscape Context

1.2.1 The Site is located on Pinfold Lane, to the south-west of Manchester Airport and to the north-east of Wilmslow Old Road.

1.2.2 The Site is within the World Freight Terminal of Manchester Airport. This is a predominantly industrial area consisting of industrial units and offices, with access roads. There is an area of open grassland and trees along Cotteril Clough Brook to the south-west of the Site, on the other side of Wilmslow Old Road.

1.3 Details of Development

1.3.1 The newly constructed building lies on a plot measuring 1.958 hectares(ha'). The building is 12.5m tall. The shallow pitched roof has been designed with low level parapets to disguise the hipped roof behind[1].

1.3.2 Landscaping will include shrub, herbaceous and grassland planting, but no tree species[2]. There are no existing trees within the Site. An outdoor amenity space with seating will be provided for site workers and visitors[3].

1.4 Relevant Guidance

1.4.1 This report is written in the standardised approach suggested in The Civil Aviation Authority's Advice note 8: - "Potential Bird Hazards from Building Design"[4]. This advice note is included in *Appendix A* of this report.

1.4.2 This report has also been written using The Civil Aviation Authority's "CAP 772 – Wildlife hazard management at aerodromes"[5] which provides guidelines for the control of bird hazards within 13km of an aerodrome.

[1] Avison Young (2023) Hanger 4, Manchester Airport - Supporting Planning Statement
[2] RPS (2023) Hanger 4, Manchester Airport - Detailed Soft Landscape Proposals
[3] RPS (2023) Hanger 4, Manchester Airport – Proposed Site Plan (Rev 03)
[4] BAA (2006) Safeguarding of Aerodromes Advice Note 8: Potential Bird Hazards from Building Design.
[5] CAA (2017) CAP 772: Wildlife hazard management at aerodromes. Civil Aviation Authority: London.

2.0 RISK ASSESSMENT

2.1 Potential Bird Activity

2.1.1 To understand the future potential bird hazards at the Site, the likelihood of the development either enhancing the existing habitat or providing new habitat or foraging opportunities at the Site for birds must be investigated and understood.

2.1.2 Should the development provide these new opportunities, there is an increased potential to increase the numbers of birds in the area. A rise in bird activity near airports has been associated with an increased risk of potential bird strikes. However, the nature of bird activity, the species, and the time of the year are all key considerations in determining the likelihood of potential bird strike events.

2.1.3 Concern is given to any development that may have the potential to significantly increase bird activity within the general proximity of an airport.

2.1.4 Therefore, the approach that has been taken for this development is:

- to assess the potential for bird species, associated with potential bird hazard risk, to be attracted to the development;
- to design out as far as practical the features that would attract these bird species to the Site and enable them to nest and roost or loaf; and
- to recommend a management and monitoring regime to identify any problems that might arise and measures to address these if they do such as to select deterrents (e.g. anti-perching devices and bird exclusion products) that could be used as necessary.

2.2 Potential Risk Species and Design Considerations

2.2.1 The primary risk species are large flocking or nuisance birds such as pigeons (*Columba spp*)., gulls (*Larus spp.*), starlings (*Sturnus vulgaris*), and corvids (*Corvus spp*), which are all species of concern when considering bird strikes.

Building design

2.2.2 Nesting jackdaws (*Corvus monedula*) can use chimneys or similar structures such as cavities on roofs, but as there are no such structures known on the roof of the building, there is no potential for roof-nesting by this species.

2.2.3 Starlings prefer to nest in holes or cavities, at times using gaps to access under roof spaces. The building design is unlikely to create new nesting areas for this species as all cladding is intended to be flush.

2.2.4 The central depression on the roof of the building may provide nesting and roosting habitat for gull species. Any depressions in the roof may allow rainwater to collect, potentially attracting birds such as gulls.

2.2.5 Photovoltaic (PV) solar panels will be installed on the roof of the building. The installation of solar panels may offer shelter, potentially enhancing the roof's appeal for nesting birds, including gulls, feral pigeons, corvids, and starlings, which may choose to nest beneath the panels.

Landscaping and use of outdoor area

2.2.6 No trees are included as part of the proposed landscaping plan, and no trees are currently present on the Site.

2.2.7 Landscaping plans comprise shrub, herbaceous and grassland planting. All species to be used are non-fruiting and therefore will not attract foraging birds.

2.2.8 An outdoor seating area will be provided in the northwest of the Site. Birds such as starlings, gulls, corvids, and pigeons could be attracted to the area if food waste is dropped instead of being disposed of carefully.

2.2.9 It is therefore anticipated that species which may be attracted to the new development are gulls, starlings, pigeons, and corvids.

3.0 MANAGEMENT PLAN

3.1 Reduction of Risk

Prevention of roosting and/or nesting on roof

3.1.1 The roof of the building will feature a shallower area between two pitched sections. As stated in Advice Note 8, where flat and / or shallow pitched roofs greater than 10m x 10m cannot be avoided in the design, there must be access available by foot to all areas of the roof to ensure that any hazardous birds, nesting, roosting, and loafing can be dispersed and where necessary any nests and eggs can be removed (under licence). Therefore, there must always be safe and easy access to the roof, preferably by way of a fixed staircase or door to facilitate regular monitoring of bird activity on the roof.

3.1.2 As stated in the Access and Maintenance Statement[6], the roof can be accessed via the internal main stair to the plant deck, then through a secure designated roof hatch and associated perimeter rail. This provides access to clean and maintain gutters, rooflights, and PV panels. A Bilco BL-WH or similar fixed aluminum vertical ladder with safety cage and lockable gate at ground floor provides an additional fire escape route from the roof.

3.1.3 If dispersal of at least ten birds from the roof is required, Airside Operations at Manchester Airport will be contacted before dispersal actions are taken.

3.1.4 There will be full cooperation with Manchester Airport Airside Operations staff if dispersal action is requested on site at any time.

3.1.5 Nesting gulls should be deterred through regular (at least once weekly between March and September) disturbance through access and monitoring of the roof. Should this not be possible, and birds start to nest, further licensable interventions such as egg-oiling may be necessary. Advice must be sought from the relevant licensing authority (i.e. Natural England). A judgement as to what methods to use will be made at the time by an appropriately experienced and qualified bird control specialist.

3.1.6 The killing of adult birds under licence may only be done as a last resort, where all other deterrent measures have failed and there is a significant risk of bird strike. The populations of many bird species are declining in the UK and herring gulls, lesser black-backed gulls, and starlings are species of particular conservation concern that may be present on or around the building.

3.1.7 If it is determined that deterrent measures have not succeeded and that lethal measures under license are necessary, guidance will be obtained from a qualified and experienced bird control specialist on the appropriate course of action.

[6] RPS (2024) Box 4 - Manchester Airport Access & Maintenance Statement

3.1.8 Where appropriate, deterrent measures such as spikes, wires, netting, or bird repellant gel will be used to deter nesting and roosting by making any ledges, shallow areas, and/or gaps unsuitable for or inaccessible by birds. It will not be possible to net the entire roof space, though it is anticipated that through the employment of suitable deterrent measures and regular checks of the roof, nesting and roosting of birds can be prevented.

3.1.9 Auditory deterrence measures, i.e. playing recordings of distress calls of the birds being targeted e.g. herring gulls and/or calls of a bird of prey e.g. peregrine, may be implemented if other deterrent measures have been attempted and deemed ineffective. When auditory deterrence is implemented, it will only occur during daylight hours and will be specifically targeted at roof areas. Auditory deterrence will be used manually and not on an automatic system as this pairs the threat suggested by the auditory deterrent with the physical threat posed by human presence and helps to reduce the chance of habituation by birds to the noise.

3.1.10 The methods outlined above will be implemented as part of a comprehensive set of prevention measures. No single measure will be relied upon exclusively.

Removal of waste

3.1.11 Site staff will be briefed on the importance of good housekeeping and disposal of litter. Regular monitoring will occur by staff, and litter will be cleaned up and removed if good site working practices are not sufficient.

3.1.12 The outdoor seating area will have covered bins that are emptied on a regular basis to prevent birds becoming attracted to food waste left by staff. This will be subject to a site wide waste management protocol.

3.1.13 Signs should also be installed to inform staff that birds should not be fed outside the building.

3.2 Monitoring Protocol

3.2.1 A dedicated bird monitor should conduct regular inspections of the roof as specified in detail below. The bird monitor can be any employee/s of the occupants of the building or of a property management company, provided they are suitably trained in identification and dispersal of relevant bird species as well as in safe roof access. Alternatively, a dedicated pest/bird control company could be employed.

3.2.2 The bird monitor should fill in a logbook to record any positive or negative (i.e. no birds present) registrations. These records will be made available to Manchester Airport to inspect upon request. An example of a logbook is provided in *Appendix B*.

3.2.3 The bird monitor should also be vigilant for any birds using the roofs between the routine checks and during the non-breeding season. If any flocks of birds are seen, the monitor should proceed to the roof to disturb and disperse them. Other site staff should be made aware of the need to monitor bird presence on or around the building and report any sightings of flocks to the bird monitor.

3.2.4 The key period for monitoring birds on the roof is during the nest prospecting and egg laying/incubation period. This is when birds are looking for nesting sites and will be most responsive to disturbance that will discourage them from breeding. This period can start in mid-March and continue until early June. Monitoring should occur at least once a week during this period. During monitoring, the roof should be accessed and walked safely, and any birds present should be dispersed.

3.2.5 Should nesting attempts by birds persist beyond early June, further weekly monitoring inspections and potentially intervention measures will be required.

3.2.6 Should nesting become a persistent problem, other intervention measures, such as egg-oiling, will be required during the incubation period. However, it should be noted that an appropriate license from Natural England will be required.

3.2.7 Outside of the bird nesting period (mid-June to mid-March), monitoring inspections can be made twice a month, or more frequently if birds are observed from the ground to congregate on the roof.

3.2.8 Should nesting attempts by birds persist beyond early June, further weekly monitoring inspections and potentially intervention measures will be required.

APPENDIX A – ADVICE NOTE 8

SAFEGUARDING OF AERODROMES BAA Advice Note 8 Potential Bird Hazards from Building Design

Introduction

Aerodrome Safeguarding ensures the safety of aircraft and their occupants when in the vicinity of an aerodrome by controlling potentially hazardous development and activity around it. Safeguarding maps are lodged with the Planning Authorities and include a 13km radius circle, this is the area within which developments likely to attract birds require consultation. Aircraft are vulnerable to bird strikes and over 80% of bird strikes occur on or close to aerodromes and their operators are required to take necessary steps to ensure that the bird strike risk is reduced to the lowest practicable level. This note considers in particular the need to minimise bird attractant features of building design within the 13km 'bird circle'. The information in this advice note is provided as a guide only and the particular circumstances surrounding individual developments, precise location relative to the airport and aircraft flight paths, the numbers, behaviour and location of bird population in the area, and the location of other bird attractive features in the local environment, all have the potential to influence the final assessment of the level of risk likely to arise.

Safeguarding

Strategy If a building design is identified as being a potential bird hazard, the developer will be expected to modify their proposals to mitigate this risk. It is possible that as part of the mitigation, it will be necessary to produce and implement a Bird Management Plan (BMP) which must be maintained for the life of the building.

Building Size

Individual dwellings will not normally be considered problematic, however blocks of flats, multi-use buildings, commercial and industrial buildings have greater potential to raise concerns. Generally for buildings with flat and/or shallow pitched roofs, if the roof area is less than 10m x 10m the number of birds likely to be found nesting, roosting or loafing on the roof are not likely to be significant, but this may not be the case for sites very close to the airport or aircraft flight paths.

Building Design

Buildings may be used by birds depending upon the design and use of the buildings and the availability of food in the nearby environment. Pigeons, starlings and gulls are the most common birds hazardous to aviation to be found in and around buildings. Pigeons make use of ledges of buildings to roost whilst starlings may roost both on and in buildings in vast numbers. Gantries and other complex structures offer potential perches and gulls are increasingly nesting on flat and shallow pitched roofs. 'Green' roofs can also be very attractive to birds.

The following features should be considered when designing a building:

- Roof overhangs should be kept to a minimum
- Ledges beneath overhangs and external protrusions should be avoided where possible
- Steeply pitched roofs should be used to deter gulls from nesting, roosting, and loafing

The roof space be designed in such a way as to prevent access by birds

Self-closing doors to prevent access to birds or openings should have plastic strip curtains fitted.

Where flat and / or shallow pitched roofs greater than 10m x 10m cannot be avoided in the design, there must be access available by foot to all areas of the roof to ensure that any hazardous birds, nesting, roosting, and loafing can be dispersed and where necessary any nests and eggs can be removed (see note below regarding licences).

Prevention, inspection and dispersal measures are included at Section 5, and comprise the following:

- Netting;
- Bird spikes;
- Distress Calls;
- Removal of Nests and / or Eggs (under the relevant Natural England licence as appropriate); and
- Inspections, where flat or shallow pitched roofs are present.

Management of birds relating to flat or shallow pitched roofs would include the following measures:

- Confirmation that access to all areas of the roof is available and by what method, to ensure that inspections can be carried out;
- Confirmation that inspections will be carried out year-round with increased frequency during the breeding season;
- Confirmation that any nests / eggs will be removed, with the appropriate licences first being obtained;
- Confirmation that any hazardous birds found nesting, roosting, and loafing will be dispersed when detected or when requested by Airfield Operations staff. In some instances, it may be necessary to contact Airfield Operations staff before bird dispersal takes place; Details of any dispersal methods to be used; and
- A log to be kept of bird numbers and species utilising the roof(s).

APPENDIX B – BIRD MONITORING LOGBOOK TEMPLATE

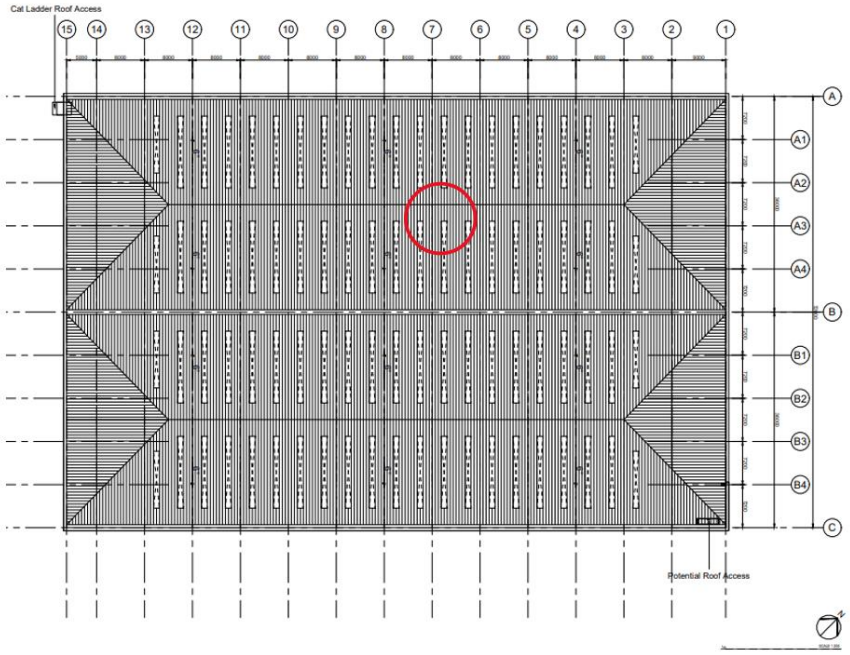
This template can be altered as required by the bird monitor, but should include the following for each entry:

- The date of the inspection,
- the person who performed the inspection,
- numbers and species/species groups (e.g. herring gulls/gulls/pigeons) present,
- the action taken to disperse them,
- the direction in which they dispersed, and
- any action required as a result.

Null records (i.e. if no birds are present) should also be recorded.

Date	Time of inspection	Bird Monitor	Species/Species groups present	No. of birds present	Dispersal action taken	Reaction of birds to dispersal	Direction of dispersal	Action to be taken and personnel responsible
e.g. 11/07/2025	*e.g. 14:50*	*e.g. A. Hitchcock*	*e.g. gulls*	*e.g. 10*	*e.g. Birds dispersed by bird monitor*	*e.g. All birds dispersed and did not re-settle on roof*	*e.g. South and West*	*e.g. No further action required until next inspection*

Location of birds



Date	Time of inspection	Personnel	Species/Species groups present	No. of birds present	Dispersal action taken	Reaction of birds to dispersal	Direction of dispersal	Action to be taken and personnel responsible

Location of birds

