

**Addendum to aerodrome measures book.
Some measures used in different countries
for reduction of bird strike risk around
the airport**

(T. Brough, Aviation Bird Unit)

ADDENDUM TO AERODROME MEASURES BOOK

SOME MEASURES USED IN DIFFERENT
COUNTRIES FOR REDUCTION OF BIRD
STRIKE RISK AROUND THE AIRPORT

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Revised entries for the United Kingdom

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Aviation Bird Unit

p.7 Garbage dumps

The "Town and Country Planning (Aerodromes) Direction 1981" requires local authorities to consult the Ministry of Defence or, as appropriate, Civil Aviation Authority concerning development of land within designated areas on or around aerodromes. This covers various bird attracting developments such as refuse tips at landfill sites within 8 statute miles (13km) of the aerodrome. The aviation authorities can advise against certain developments and, if no agreement can be reached, an inquiry could result, leading to a ministerial decision concerning the land usage. These arrangements apply only to planning applications for future developments. Little can be done to close landfill sites already in existence.

p.11 Pigeons

There is nothing to prevent local residents from keeping or rearing pigeons in lofts in the vicinity of aerodromes and releasing them for exercise flights. There are also no legally binding regulations regarding mass releases of birds. There is, however, a satisfactory informal agreement with the Royal Pigeon Racing Association (to which most local clubs are affiliated) whereby large releases of pigeons are banned within 7 nautical miles (13km) of major civil aerodromes. For other civil, and all military, aerodromes, all liberations within 7 miles have to be notified to Air Traffic Control (ATC) 14 days before the date of release and additionally by telephone 30 minutes before release time. For ATC purposes, such releases can be delayed by 30 minutes. This agreement is reviewed annually and works well.

p.14 Use of land

As in the case of landfill sites or refuse tips, the "Town and Country Planning (Aerodromes) Direction 1981" requires local authorities to consult the Ministry of Defence or Civil Aviation Authority concerning applications for possible bird attracting developments such as reservoirs, sewage disposal works, nature reserves or bird sanctuaries within 8 statute miles (13km) of major civil, and all military, aerodromes. Developments such as gravel pits and quarries, which are likely to become expanses of open water or potential landfill sites in the future, are also included.

p.24 Trees and bushes

Trees and bushes are treated as obstacles within areas to which the consultative procedures of the "Town and Country Planning (Aerodromes) Direction, 1981" apply. Matters which cannot be agreed between the aviation authorities and the local planning authority could result in an inquiry leading to a ministerial decision. There are, however, no consultative requirements in respect of possible bird hazards associated with trees and bushes. The latter are often grown on aerodromes to enhance appearance and screen obtrusive buildings. Aerodrome operators ought to be aware from advisory literature of the potential dangers of bird attraction and would be expected by the aviation authorities to take remedial action in the event of problems arising. This might involve the thinning or even total clearance of trees where significant problems have arisen and no alternative solution is possible. Such action off the aerodrome would be subject to agreement with the land-owner.

p.27 sanctuaries

Planning applications for proposed sanctuaries or nature reserves require consultation with the Ministry of Defence or Civil Aviation Authority exactly as in the case of garbage dumps and other land developments which may attract birds and are described earlier. Again, there are no legal requirements regarding existing sanctuaries or nature reserves.

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p.33 Length of the grass

Long grass is recommended as a bird deterrent at civil aerodromes with paved runways. Grass within 5m of such runways should not be longer than 10cm, but elsewhere a maximum of 20cm is suggested. Specialist advice should be obtained before adopting a long grass policy at any aerodrome. General advice is provided in paragraphs 4.3 and 4.4 of the document issued by CAA to UK airport operators entitled "Bird Control on Aerodromes" ref CAP 384. Similar practices are to be found on military aerodromes. The control of weeds, which are a source of food for some birds, is included in the recommendations for the maintenance of areas devoted to grass.

p.37 Chemical repellents

No chemical methods of repelling birds are used and none is known to be suitable.

New entry - concerns use of chemicals but not as a repellent.
Proposed title **Bird population control**

In exceptional circumstances, herring gulls Larus argentatus and great black-backed gulls L. marinus breeding on an aerodrome and on an air weapons range have been stupefied on their nests by baiting with alpha-chloralose and seconal and subsequently killed. This work has been carried out under government licence.

New entry - concerns use of chemicals but not as bird repellents.
Suggested title **Chemical control of invertebrate food sources**

On a very few occasions when crane flies (Tipulidae) have attracted birds to aerodromes, they have been treated with insecticide. Chlorpyrifos has been used now that DDT is banned. Less frequently lumbricides have been used to kill earthworms but no details are known.

p.42 Bird sounds

Great reliance is still placed on the use of recorded distress calls. A variety of compact cassette in-car equipment is used.

p.43 Bird sounds but should perhaps be headed "Acoustic devices"

Ultrasonic noises in the range of 18-30 kHz produced virtually no avoidance reaction in aviary tests in 1967 with six different species of perching birds. No further work was undertaken.

Synthetic sounds produced by Av-Alarm equipment were tested in the field against several common airfield species in 1968-71. The results were considerably less effective than those produced by distress call broadcasts. Not used on aerodromes.

p.46 Shell crackers

Bird scaring cartridges or shellcrackers are used regularly on most aerodromes. Twelve bore shotgun blanks are sometimes used as a substitute in congested areas near buildings and aircraft, or where shellcracker projectiles might cause a fire hazard.

p.47 Gas cannon (New entry)

Gas cannons are only used at a few aerodromes and are not recommended for general use.

p.51 Falconry

Falcons and hawks are used only at a few military airfields and always in conjunction with other techniques. In most cases these birds are only permitted to fly when aircraft are not operating; eventually this will apply in all cases.

p.52 Birds mock up

Models of gulls (ie skins of herring gulls Larus argentatus and lesser black-backed gulls L. fuscus mounted by a taxidermist in realistic attitudes) were found neither to repel nor attract common gulls L. canus on an aerodrome.

Life-size silhouettes of black-headed gulls L. ridibundus, common gulls and herring gulls with wings outstretched and cut out of 25mm polystyrene sheet and then painted, had limited scaring effect on

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gulls when scattered on a loafing site by a refuse tip. Trials with silhouettes of lapwings Vanellus vanellus made in the same way and placed on an aerodrome proved unrewarding.

p.57 Visual scaring

The slow waving of an operator's arms, as though to simulate the wing beats of an eagle, has proved a cheap and effective way of scaring birds and is a useful supplement to other methods.

Stringing wires across small bodies of water has on occasions been successful in deterring gulls and wildfowl. An array of wires has also been used to prevent gulls from feeding on a circular filter bed at a small sewage treatment works on the edge of an aerodrome.

A static searchlight and a searchlight mounted on a vehicle have both proved useful in scaring gulls from an aerodrome at night.

p.63 Organisation

The Civil Aviation Authority expects that a senior member of the aerodrome management/operations staff will be responsible for bird control organisation, co ordination of operator training, and supervision and maintenance of records of operational and incident data.

For civil aerodromes, procedures are covered in detail in the CAA Publication CAP384 "Bird Control on Aerodromes" which is the main guidance document. Civil aerodromes which are licensed by the Civil Aviation Authority are required to produce an Aerodrome Manual which is designed to instruct the aerodrome operating staff as to the procedures relevant to their duties. The Manual must demonstrate a reasonably effective system for bird detection, deterrence and dispersal in relation to the scale of the bird problem and the type and level of air traffic at the aerodrome.

Some assessments of the adequacy of bird control practices are made by the CAA aerodrome inspector during licensing inspection visits. Occasional visits to review bird problems and their control and to

give advice are also made by the Aviation Bird Unit (ABU) when requested. The CAA provide courses for civil aerodrome personnel at which instruction is given by the ABU on aerodrome bird control.

On the military side, the RAF has Bird Control Units (BCUs) at all airfields which are regarded as "high risk". The BCUs generally consist of about three men using distress calls, bird scaring cartridges and, in extreme cases, a shotgun. The units are established with their own Land-Rover and are under the direct supervision of the Senior Air Traffic Control Officer (SATCO) who is responsible to the station commander for the operational status of the airfield. Group and Command headquarters supervise individual airfield operations.

All RAF BCUs are progressively being "civilianised", ie their duties are being taken over by private contractors, each for a five year term. This exercise is organised by the Central Bird Control Co-ordinating Officer (CBCCO) in the National Air Traffic Services (NATS). The CBCCO has overall responsibility for bird control practices on military aerodromes in the UK and obtains advice and assistance from the ABU on specialised matters.

p.69-70 Appendix 1 : Persons

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