

BIRDS ON AIRPORTS

THE REASON FOR THEIR PRESENCE

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SUMMARY : This audio-visual setting is aimed at explaining the reason which make airports attractive for birds.

The factors considered are the presence of food sources, shelter and relative peace.

The setting is meant for persons in charge of managing and maintaining airports.

It is part of a series devoted to bird strike in aviation :

- "Birds, obstacles to the air navigation" (to be published)
- "The airport bird problem - scaring devices" (available)
- "Birds on airports - ecological light" (to be published)

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Making airports and their surroundings inhospitable for birds - that is one of the goals pursued to reduce the risk of bird ingestion or bird strikes on aircraft.

But the presence of birds on the airport grounds and in the vicinity is never due to chance. It results from the needs that they must satisfy to ensure their survival.

The result is a situation of conflict, as well as encounters - sometimes grave - which endanger the safety of aircraft, passengers and crew.

Knowing the present causes for the presence of birds and forecasting the future causes can make it possible to eliminate certain attractions of the airport environment for bird populations.

Airports present vast open spaces, free of all obstacles. This open environment is particularly suitable for certain birds species :

- Black-headed gull
- Lapwing
- Buzzard
- Starling
- Black-kite
- Partridge
- Montag 's harrier
- Rook
- Stone-curlew
- Herring gull

The numbers of birds present on the airport grounds at any one time depends upon numerous factors :

THE SEASON

At Toulouse-Blagnac, the lapwings are present from october to march.

THE GEOGRAPHICAL POSITION

From their grounds in the Camargue region, flamingos make frequent incursions into the Marseilles-Marignane airport.

THE ENVIRONMENT

The proximity of a source of food, such as the upwelling of a sewer discharge, causes massive movements of Gulls across the runways of Nice-Cote d'Azur airport.

NATURE AND STATE OF THE GROUND

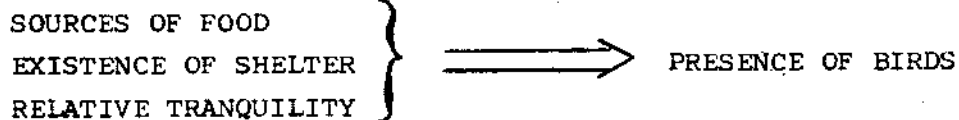
Ducks and teals are attracted to the marshes of the poorly drained bottom land at Roissy-Charles de Gaulle airport.

METEOROLOGICAL CONDITIONS

In the presence of high winds and heavy rain, sea gulls move inland and take refuge on airport grounds.

AIRPORT ACTIVITY

In the absence of traffic sea gulls land on, and remain on parking aprons.



SOURCES OF FOOD

The unused zones on the airport grounds are not subjected to agrosanitary (pesticid) treatments. Consequently rich in small prey, they attract numerous bird species:

The starlings find larva and insects.

The buzzard captures small mammals.

During plowing, the soil's microfauna provides choice meals for gulls.

Insects, nested eggs, and small mammals are exposed by mowing; birds of prey profit from this windfall.

Starlings are particularly on the lookout for the seeds of wild and domestic plants.

The corpses of animals killed by aircraft attract crows and raptors.

Nocturnal insects killed by marker lights are appreciated by crows.

Other insects are actively chased in flight by swifts, swallows, and black-headed gulls.

The pasturing of sheep leads to an increase in certain insect populations, which in turn draw lapwings, starlings, gulls, swifts, and swallows to the airport area.

Basins, ponds, marshes, and wet zones all are favorable to the presence of birds.

EXISTENCE OF SHELTER

The vast open spaces found on airport grounds offer preferred "rest areas" for certain bird species, such as the little bustard and the golden plover.

The runways, the taxiways, the aprons, and fields in the freshly plowed or seeded state, all are privileged landing zones for black-headed gulls and hering gulls.

For species preferring cover, such as partridges and pheasants, grain fields, including wheat, corn and sorghum, and colza fields are highly appreciated.

Beacon poles, masts, and antennas; power-supply shelters; and fences all serve as shelters, perches, and lookout towers for nocturnal and diurnal raptors.

Finally, the airport buildings themselves often offer excellent shelter to certain hawks, starlings, sparrows, and swallows, of course.

RELATIVE TRANQUILITY

This is evidently present for the birds, because the human activities on the airport grounds are accomplished in vehicles on the roads and runways, construction or agricultural machines, and aircraft, of course.

The presence of man as an isolated silhouette associated with a menace for the birds is generally excluded, which is not the case outside the airport environment.

All in all, the airport is almost a refuge for the species that are capable of rapidly adjusting to the visual and acoustic perturbations common to airport activities.

However, the very presence of all of these birds on or near the runways must be considered as a veritable obstacle to safe operations. More complete knowledge of this obstacle will certainly make it possible to improve the safety conditions.