

IMPROVING WILDLIFE MANAGEMENT STRATEGIES AT AIRPORTS

INVESTIGATIVE REPORT BY E.M. FAY



Coyote outside of fence

Modern airports have to contend with a great number of safety issues. In some cases, the problems are technical, related to the proper functioning of equipment or weather events. Some considerations are human-oriented – anything from obstreperous passengers to the more dangerous possibility of terrorist activity. And then there are animal-related concerns, as when wildlife get near airfields or aircraft in a way that endangers both humans and animals alike.

Among the animals that can pose a hazard for planes, probably the most well known is the Canada goose. Migrating Canada geese, in particular, can fly at altitudes and on flyways that could bring them into fatal contact with aircraft. When a flock or some mem-

bers of a flock get sucked into the powerful vortex of a jet engine, the encounter could endanger the aircraft and its passengers, and is always fatal for the geese themselves. These bird and aircraft collisions are often referred to as "bird strikes."

On the ground, another wild animal that can be a problem is the coyote. When they get onto an airfield, their simple presence can block the take-off or landing of planes. And in some instances, as mentioned in a recent story from Martin County, Florida, it was claimed that they may do damage to electrical wiring or other equipment. As human safety is the number one priority for airport officials, a variety of tactics have been undertaken in order to remove animals from their property. Consequently, many airports employ wildlife biologists to design and/or implement strategies that will protect their passengers.

At Portland International Airport, in Portland, Oregon, Nick Atwell is the Aviation Wildlife Manager. Atwell has been at the airport (acronym: PDX) for approximately ten years, starting out as an intern and working his way up to manager. He has degrees in Natural

WILDLIFE MANAGEMENT

Continued on page 2

WILDLIFE MANAGEMENT

Continued from page 1



Bird balls keep canadas and other waterfowl out of retention ponds

Resources and Organismal Wildlife Biology. He and his team of three Wildlife Technicians and one intern are under the aegis of the Environmental Department, and are employed by the Port of Portland, which is the parent entity that owns and operates the airport, as well as other transportation hubs in the area.

Atwell explained that part of the reason that geese turn up near so many airports across the country is that airports are often built on land located on traditional bird migration routes – “flyways” – as well as on wetlands, a prime habitat for many birds. Airfields and associated undeveloped buffer properties also present literally hundreds and sometimes thousands of acres of relatively short grass habitat, highly attractive to Canada geese as well as other species of concern for aviation safety. Atwell noted that different geographic regions have different animal populations to deal with. For example, Oregon does not have a laughing gull population, which has been alleged to be a safety hazard at JFK Airport in New York. Portland does have red-tailed hawks, however. PDX is on the Pacific Flyway for this bird, so

their wildlife team might trap and relocate as many as 100 or so hawks per year.

“Animal control issues are totally different from airport to airport,” Atwell told us. This means that what is done to cope with animal hazards at one airport may not work at another.

“Because every airport has its own unique issues, you can’t apply a cookie-cutter recipe to each one. They have to be addressed independently.”

At Portland International Airport, the wildlife team does its best to deal as humanely as possible with animal “intruders.” They began by forming a wildlife hazard working group, and bringing in a variety of experts to provide input so that a rational and efficient program could be devised. Experienced groups, including animal rights organizations, were consulted. The direction of the program was thus formulated by a collective voice, to



Fencing prevents digging

make sure that all available resources were used intelligently.

The use of raptor trapping/relocation, pyro-technics, lasers, and cannons are other techniques employed by Atwell’s team to frighten away wildlife from the airfield environment. Regarding dissuasive methods in general, he said,

“Instead of being reactive, we prefer to be pro-active, such as putting in buried fencing so coyotes and other animals can’t dig



Construction silt fencing breaks up the line of sight in large open areas. This decreases visibility for geese, when their visibility is limited, the geese sense a predator may be waiting beyond the obstruction.

under the airfield fence.

We also use construction silt fencing to break up the line of sight in large open areas. This decreases visibility for the geese, and they feel a level of uncertainty when their visibility is limited. They know there may be a predator beyond the obstruction.”

By using visual barriers the wildlife managers effectively take advantage of the birds’ own natural instincts for self-preservation. When they cannot see beyond a sufficient point, they feel uncomfortable with the space and will not likely congregate there.

Occasionally, a coyote will find his or her way onto the airfield. One of the non-lethal methods used at PDX since 2002 is the “herding” of coyotes. Staff members will open the gate nearest to them and then drive a vehicle slowly, guiding the coyotes along the fence until they reach the open gate and leave the airfield. It is important not to panic the coyotes into running the wrong way. Coyotes are smart, though, and sometimes they will head for the gate as soon as a vehicle approaches. Such a measure may seem simple, but Atwell stresses that it might not be appropriate for other airports with different topography and wildlife populations. “Every airport has to adapt to their own changing environments and be pro-active.”

As for long-term animal strategy, Atwell said, “We want to get down to root causes so we can exclude them from the airfield in the first place.” To this end, they implement “specific landscape standards throughout the property.” There are spacing requirements between trees, and they do not plant any attractive vegetation or trees that encourage roosting or foraging. Even grasses are carefully considered. A great deal of scientific know-how is involved.

“There is a specific species planting list that we use,” Atwell stated. “We screen plants in relation to birds that are of concern to aviation safety. We know the birds’ life history requirements, making sure there are no direct associations between birds and plants which might

WILDLIFE MANAGEMENT

Continued on page 7

WILDLIFE MANAGEMENT

Continued from page 2

increase overall attractiveness to the area. You can match up birds and what plants they depend on. The phenology of the plant is important: when does it fruit, leaf, etc. In general, it is best to decrease any seed-bearing or fruit-bearing plants. Implementing effective landscaping standards decreases the threat to aviation by not attracting as many birds to the airport."

We at Wildlife Watch applaud such intelligent measures. Using plants that do not bear seeds is a practical and harmless way to discourage birds and other animals from hanging around airfields. Contrary to some airport authorities who advocate poisoning or shooting wildlife, we feel this is the progressive way to go.

The Mission Statement of the PDX Wildlife Program is to "control aviation wildlife hazards by implementing non-lethal means whenever possible to ensure aviation safety." However, if it is

deemed necessary for public safety, lethal methods are occasionally utilized.

Commercial and civilian airports are required to have a wildlife program in place. As with any entity, some plans are more effective and well-thought-out than others. Each "Wildlife Hazard Assessment" team should look at all the resources at their disposal – whether it's hazing, relocation, unpalatable plantings, use of dogs, etc. – and add as many useful tools as possible. Atwell reiterated that being pro-active is preferable to being merely reactive.

"Effective long-term strategy is habitat modification," Atwell added. "And going through appropriate permitting to mitigate off site."

The Wildlife Management Program at PDX is based on "Four Pillars."

I – Short-term Operational Strategy: Day-to-day, sunup-to-sunset, hazing, trapping, relocation. These are the more reactionary methods.

II – Long-term Management Strategy: Implementing compatible land-use planning and habitat modification.

III – Research and Development (R&D): Prey-based studies, deterrent tests, figuring out and testing current strategies to see if they warrant continuing or modifying. R & D informs both Short-term and Long-term management strategies.

IV – Information and Education: Talking to all stakeholders, attending bird strike committees, and exchanging information with other airports – to learn and improve strategies.

With airport safety as with other issues that have an impact on the public, there are usually a variety of ways to handle any problem. Portland International Airport's Wildlife Management Department is using an enlightened and humane approach that sets a good example. Doubtless, other airports have some sensible policies in place, as well. We will be revisiting this issue in future as we learn of other humane methods that protect both human and animal lives.

http://www.portofportland.com/PDX_WildLife_Mngmnt.htm

Photo credits : The Port of Portland.