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BIRD MANAGEMENT AT AIRPORTS

Edward R. Ladd
U.S. Fish and Wildlife Service, Hadley, Massachusetts

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BY:
Edward R. Ladd, Wildlife Biologist
U.S. Fish and Wildlife Service
451 Russell Street
Hadley, Massachusetts 01035

As mentioned by the previous speaker, many of you will be flying out tonight, tomorrow, or the next day. This is a bird conference. Just think, while you are on that plane there is a chance for the birds to get even!

I am not going into a great deal of detail. More or less, because of a series of incidents, it is a chance for me to tell you what we have been doing in a localized situation.

In New England, and along the stretch of coastline which starts just south of Canada and goes down through New Jersey, we have half a dozen major or what we call international airports. All but two have bird problems. Most of these airports were built on submarginal land, but what was perhaps some of the best wildlife habitat in the country. So, the birds were there first. When these airports were built, airlines were flying propeller-type aircraft. This type was slow and sluggish compared to the jet aircraft of today. Even though aircraft speeds have increased, the birds still are using their habitual flight paths and feeding in the marshes and mud flats. But, they just cannot move fast enough to get away from these airplanes. So, perhaps this is how a lot of the incidents started.

Prior to 1960, the office out of which I then worked was not too deeply involved with bird problems at airports. We had a few static problems like maintenance hangars, shops, and things of this nature--but we had not become involved in any major bird-aircraft hazard situations. In 1960, however, 60 people did not survive a plane crash in the Boston Harbor. So, all of a sudden we were involved clear up to our necks. And believe me, we didn't know exactly what to do! A mad scramble took place and a lot of "specialists" were put on the problem. Immediately a set of recommendations were drawn up and put into use. A lot of quick mowing was done and various scaring devices, such as noise-makers, were put into use. This resulted in a major drop in bird numbers at the airport. And since that time, there has not been a major crash at the Logan International Airport at Boston, Massachusetts.

The one thing that did come out of this initial problem was a simple format. This not only has helped us in working with some of the larger airports but a lot of the smaller ones. Now when someone calls the office and says, "Look, we have a bird problem," we know what to do whether it is a Piper-cub field in a back pasture or a major international airport. The first thing we do is send the best biologist available. We send a person who listens, asks a lot of questions, and is just plain "nosey." This biologist goes out and finds the top man in charge; and he sits down

and talks with him. He finds out just what the problem is. With this completed, he goes and does his leg work. This is a complete survey of the airport. He uses aerial photographs that are available; finds out what the vegetative cover is; what food supplies are available; who the sloppy foodhandlers are in the area; whether the airport is on a harbor, river, or other body of water; and what the surrounding towns are contributing to the problem. Next, he goes out a few more miles to see what some of the local communities may be contributing to the problem. There are a tremendous number of open-face dumps in some areas; and in a coastal situation if you have a dump here and a dump there, you may have a constant passage of birds back and forth between them. If an airport happens to be located between them and there is a DC-8 coming through, the possibility of a bird strike is great. Like any survey, you have to take just about every conceivable factor into consideration.

To repeat, the biologist does the leg work. He listens a lot, asks many questions. He starts with the "top brass" and works right down to the guy that goes out and mows the grass with a lawn mower in front of the main administration building. He then starts to piece together the jig-saw puzzle.

Sometimes it is easy. We have had a couple of cases where small aircraft was involved at fields just large enough to warrant putting down an asphalt strip. Light aircraft was hit, but the problem was not at the airport. The problem was one large open-face dump near one of the surrounding towns. The dump area was contracted out to several surrounding communities, so there was a monstrous pile of trash kicking around. It was a coastal situation, and 8-10 thousand gulls visited the daily dump. The airport was between the dump and the coast, on the flight path used by the birds to reach their roosting sites. Several light aircraft-bird collisions resulted because of this situation. It was corrected by cleaning up the area and proper dump management.

We found that one of the best things to do was to sit down and put together the jigsaw in rough form; that is, find a big, round, conference table somewhere; sit down with the powers that be, and just hash things out. Make emergency recommendations first. If there is a major bird hazard at a particular airport, probably there are a few things that can be done immediately.

At one location, there was a small dump on the airport itself which attracted pigeons, starlings, sparrows, and few other assorted birds. The dump was a major hazard to one particular runway. The solution was to get a bulldozer and cover the dump.

Sometimes there are a few fresh or brackish water ponds which have a fair amount of aquatic vegetation which is attractive. The immediate vegetation can be cut down that is contributing to the particular problem. These are emergency measures that can be taken.

In checking, you may find that food-handling services will put out one dumpster when actually two are needed —and you know what this means—trash just blowing all over the place! These are some of the things that can be corrected immediately.

Before going into any long-range planning, we have found it best to sit down with the powers that be and find out what their plans are for their particular airport for the next 5, 10, or 15 years. Find out what can be done now and what equipment is available to resolve some of the situations. By working together, we can arrive at

a management plan and a goal to aim for. In a sense, the particular airport will be made a "biological desert" as far as problem species of birds are concerned. If it is a localized bird problem, meaning birds are living on, in, or around the airport, about the only thing that can be done for long-lasting results is to sterilize the airport.

Another factor that has been a decided help to those of us working in this area during the past several years is admitting that we do not know everything. We can go out and do the leg work, gather a lot of information, and come up with some logical answers. In some areas, we have a fair amount of expertise; but we are not entomologists, soil scientists, or hydrologists. In many fields we have only the basic know-how. It is a decided advantage to get together with people who do know what they are talking about and bring them in on the problem. So, it is not a one agency report or plan. It is a collection of the best, available information and the advice of many people. Finally, this is what is put together as the final solution to the problem or the long-range management plan.

Some hazards found at airports can be cured immediately; but I do not think you can recommend that 15 acres of pond be filled in or recommend that a whole new drainage system be created. Major projects take time and money. Eventually such recommended projects may have to be undertaken. But again, you cannot expect the trucks to start rolling tomorrow. This is where close liaison with airport officials is essential. If they indicate they have no intention of filling in ponds or mowing vegetation, you then have to present the hazard to them. Say that these things are the cause of their problems and will become greater and they had better start thinking about doing something to eliminate them.

With a complete survey, an analysis of the problems, and a series of recommendations all combined make up a plan. They have a basis for operation. They know what has happened in the past, what can be expected, and they have a pretty good idea of what can be done to alleviate their problems. The material then can be incorporated into airport development plans.

One problem is that people have a tendency to forget. They forget that an Electra plowed into Boston Harbor and 60 people died. So, at two major airports we maintain a monitoring system. This has been going on in one airport for 8 solid years. The assigned biologist goes out usually once a week. During some seasons he goes out only once a month, depending upon what the bird situation is. The following are documented and reported: time, date, tide, bird species, bird numbers, and location; whether people are digging clams out on the clam flats; whether herring gulls are beginning to nest near the sea runway; whether the phragmites were mowed during the month; how good a job had been done in insect control; and whether the bird patrol was operating properly. All of the previously-mentioned data is included in a report. The report in turn goes to everyone concerned with the problem. As mentioned before, peoples' memories are pretty darn short and they have to be reminded what will happen if the phragmites are not mowed, etc.

One thing that has evolved from eight years of observation is that although local bird movements are not static, there are certain movement patterns, dates of arrival, etc, that are predictable. They keep changing from one airport and people forget the information gathered during the past 8 years on dates of arrival, species, and probable location at the airport has been summarized. This may be one method of keeping the information going from one set of controllers to the

next. By looking at the summary, they can logically guess what birds will arrive, when, and where they will be found.

The last item I wish to mention is our present scheme for supplying information to those who need it at the airport. This is a base map of the airport area, with a series of overlays showing existing hazard factors, such as dumps contributing to bird hazards, and a vegetative overlay. Hopefully, this graphic presentation of the problems will again emphasize the bird hazards at a given airport.