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CONTROL OF BIRDS IN AIRCRAFT HANGARS

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First of all, I should say that Jim Steckel and I get along pretty well. I don't really give him a hard time, but after this morning I think I'll reconsider and give him hell as much as I can.

What I am going to say this afternoon about bird control in hangars won't take but a few minutes, mainly because I think this is one area that we already have partial solutions. By this I mean that in most instances, at least where I've worked, we've been able to solve most of the hangar bird problems. Some of you have probably worked on similar problems or have worked in airplane hangars and after the session I'll certainly welcome any comments you may have. What I have to say will relate mainly to what I've done myself, or the men who work for me have done. This will be first-hand experience.

Most of the work has been done on military installations. Specifically, it's been done at Clinton Air Force Base in Ohio, Hanscom Air Force Base in Massachusetts, Lockbourne Air Force Base in Ohio, Wright-Patterson Field in Ohio, and Selfridge Air Force Base in Michigan. The reason we've worked only on military bases is three-fold. One is that in many cases the private pest control operators have contractual agreements with private air bases. Another is that maybe the public airports fail to realize that something can be done to help them. A third reason is that the Department of Interior has a working agreement with the Department of Defense in taking care of pest bird problem species on their military installations.

As far as public or private airports are concerned, especially in hangar work or in building work with roosting birds, I think the role in control should be with the private pest control industry, once they know the proper techniques of solving these problems. I myself would love to get out of this type of activity. It's a lot of work and there's a lot involved. Before we go on I think I'll show you some of the situations we get into. I have three slides here of different bases that we worked at.

The first slide will give you a good idea of the size of the building you have to work with. There is a tanker plane beside this building. I'd say the building is 200 feet tall; it is at McGuire Air Force Base in

New Jersey. The problem here was roosting starlings in the hangar.

The next slide shows again how large the buildings are. There is a car beside this one; it's a blimp hangar in North Carolina where we were concerned with roosting pigeons. It takes a little work to control birds in a situation of this type.

This slide shows the interior sections of the blimp hangar and what happens when birds roost in the I-beams high inside any of these hangars. They come in through various openings within the hangars and the problem is getting the birds out.

Next.. This is basically what concerns the Air Force people, the accumulation of droppings, feathers, etc., within the buildings.

In addition to this type of damage the authorities are concerned with the destruction of airplanes as such. Apparently these droppings have a corrosive effect on the aluminum skin of airplanes. If enough accumulation of droppings fall on an airplane, it weakens the structure itself. They're concerned with buildings where they do engine repairs, where they will have jet engines open for repair. If droppings, feathers, and so forth get into the engines, they have to clean the various parts off. It can become quite expensive and, of course, there is a certain safety hazard involved. Fortunately the bird species involved in most cases that I've worked with are not protected by state or federal regulations. They are starlings, house sparrows, and pigeons. I'm not going to say that other species do not roost in bird hangars, but these are the only ones we've been involved with.

At Hanscom Field, we had roughly 5,000 starlings roosting in this hangar. At Clinton Air Force Base we were involved with six hangars with 200-300 house sparrows in each hangar. At Lockbourne, we had three hangars, principal species here were house sparrows (2,000-3,000 between the three hangars) with an additional 2,000-3,000 starlings. Wright-Patterson Field was basically a pigeon problem, not in a hangar but in a propeller testing area. Selfridge Air Force Base, in Michigan, had basically a house sparrow problem. I mentioned the blimp hangars was a problem with pigeons. I didn't work on this problem; it took place in North Carolina after I left.

Basically the way we've attacked the problem is through eliminating the bird populations within the hangars. We've tried this with various methods--scaring devices, repellents, screening, and toxicants. I'll try to go through each of these and evaluate how they worked.

At Hanscom Field where we had the starlings, we tried scaring devices--shotgun shells, exploders, etc. We could deter some birds from entering the hangar, but the majority eventually found ways into the building. One problem you run into when you use an exploder or shotgun shells, etc., is a fire hazard. The fire marshals at these bases are quite strict on the use of these materials around areas where they have fuel storage. I found through experience that lights, revolving lights, etc., were of little value in these places. Most of these hangars

are used twenty-four hours a day and the lights are on continually. The birds that enter pay little or no attention to a light device. Screening is effective but you saw the size of the buildings and entrance ways and it's really not economical.

Toxicants are, I feel, the best method of eliminating these problems. Basically we've been associated with the use of three--endrin, strychnine, and this new material that's been mentioned, Queletox. Entex, as you were told, is only registered for use in Rid-A-Bird perches. I know some establishments that have used these perches in numbers and they have had success in removing the bird populations in the hangars. I might relate that endrin has been used in hangars for bird control, specifically at Lockbourne Air Force Base and Wright-Patterson Air Force Base where entire hangars were sprayed with endrin. It killed the birds; it worked well, but the material remained toxic for at least two years. The hangars also remained bird-proof for two years. The Air Force people have been told not to use this material because of the danger to personnel.

Strychnine-treated grain, we found, worked well with pigeons. This is what we used at Wright-Patterson where we baited the tops of buildings with the strychnine-type bait and were successful in reducing, I won't say eliminating, a flock of 1,000 pigeons to roughly 20 birds. It took about three or four days time, and it took quite a bit of initial preparation in pre-baiting. I do think this has a possibility; I think in some situations where you're concerned with sparrows, you might control the populations in this manner. The one material I want to dwell on a little bit, and I'm not presenting a commercial, is Queletox. To my way of thinking this is the best tool we will have available for this type of situation. It's experimental, it's a 12% preparation, and we have used it with the idea of securing data for the company so that they can register this material for professional use. We use it at four bases, Lockbourne, Wright-Patterson, and Selfridge, and Clinton County Air Force Base also. So I feel that we gave it a fair test. Charlie, would you run through these three slides quickly?

This was taken at Lockbourne in Columbus. It illustrates the method of applying Queletox (caulking gun applies bead on taped surface). Most of the birds in this hangar entered through small openings at the corners of the large doors. Consequently, all we did was treat entry ways.

These are pigeons that have been affected by Queletox (lethargic looking). We used a paste material; it took longer to affect pigeons than it did sparrows or starlings. We followed label directions, and applied the material to tape so that when we finished the operation we could remove the tape and toxicant from the building. We treated all entryways into the building with the material and found that birds entered the buildings and went through the material. Most of the birds died within the building.

We also found quite a repellency effect on this material. I noticed that sparrows would come to openings and try not to go through the openings. Some would leave the building entirely and others would enter through the material. Not all birds that walked or came in contact with the material died in the building; some were found 200-300 yards from the building. One other thing we learned and that is it appears that the material doesn't work well at low temperatures or temperatures below freezing.

The time involved was one building per afternoon. We used an electric lift. This time could be cut in half if we didn't have to apply tape. Depending on the size of the building, I'd say we averaged ten or twelve tubes of material per building.

All the instances where we tried the material one application was good for three to four months. Within two to three weeks after application we removed the material, and then within three to four months birds began to re-enter the hangars.

That, in essence, is the procedure and methods we used. As I said, I feel that this material has great promise inside of a building. It's quite selective. It is used in areas where people don't come in contact with it. I only hope that it's registered so that the industry can use it. In closing I'll say that for once whenever I'm confronted with a bird problem that involves hangars I have confidence that we can do something that will solve the problem. I can't say that for most of our bird problems.

[Discussion on page 52 .]