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ACTIVITIES OF THE FAA INTER-AGENCY BIRD HAZARD COMMITTEE

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The Federal Aviation Administration established an Inter-Agency Bird Hazard Committee in September 1966 in recognition of the increased hazard of birds to aviation. This inter-agency group was formed to obtain and consolidate information about the bird-aircraft problem and to develop ways of lessening collisions between birds and aircraft. The committee includes representatives from the Federal Aviation Administration, Civil Aeronautics Board, Department of Health, Education & Welfare, National Aeronautics & Space Administration, U.S. Department of the Interior, U.S. Air Force, U.S. Army, and the U.S. Navy.

The activities of the committee have been limited primarily to an advisory role. It is without authority to establish regulations or to fund research or management measures. Furthermore, unlike the situation in most other countries, the FAA has little authority over the operation of airports (except for Washington National and Dulles). In spite of these limitations, progress has been made by the agency and the committee in a variety of areas. These accomplishments include the following:

1. Federal money for airport improvements will not be granted if airports do not adhere to certain safety practices having a direct bearing on bird problems, e.g., one cannot operate a garbage dump on an airport and expect to qualify for aid funds.
2. The FAA has conducted tests to evaluate the resistance of turboprop and jet engines to bird ingestions, and has tested the resistance of airframe components to the impacts of birds fired at varying velocities from air cannon. Reports of these tests can be obtained from the FAA.
3. A standard bird-plane hazard strike-reporting form was developed and placed into use to obtain pertinent data on the problem. (Results of this reporting will be described later in this report.)
4. The agency has published information about the bird problem and has issued Notices to Airmen about bird hazards, with emphasis on the fall and spring migration periods.
5. Advisory circulars about the use of a chemical bird-frightening agent (Avitrol) and about the reactions of birds to scaring devices were prepared and distributed.

6. The committee has made on-site inspections of gull-airport problems in the Northeast; and it has sought aid from the Federal Water Pollution Control Administration, the Bureau of Commercial Fisheries, the Department of Health, Education, and Welfare, and local Governments in an attempt to resolve airport bird problems caused by sewage, fish waste, and garbage dumps.
7. The FAA has been funding research on the bird-aircraft problem for several years. Several publications have resulted, and the latest is the work by Frank Bellrose on hazards to aircraft by migrating birds in the Mississippi Flyway. (I have some copies with me, and others who desire copies can write to me.)

At the Patuxent Wildlife Research Center, we have been compiling strike data and reporting the findings to FAA since 1961, and now certain recommendations and inferences can be made:

1. The incidence of bird-plane strikes is highest during the fall months of September and October, and it would be most appropriate for all concerned to conduct intensive programs for reducing the bird hazard at this time of the year.
2. Remedial programs should be concentrated in airport areas by: (a) altering the habitat features that attract birds to the vicinity of airports, e.g., high grass, ponds, garbage dumps, sewage, and (b) repelling birds from an airport through use of mobile patrols.
3. Steps also should be taken to protect cruising aircraft as much as possible because of the potential for greater damage when strikes occur at cruise speeds. The cruise hazard would be alleviated to some degree if pilots received timely warnings of known bird concentrations and altitudes, and would request changes in route and altitude assignments whenever possible. The use of more bird-strike-resistant aircraft components—engines, windshields—also would reduce the hazard.
4. Twenty percent of all reported commercial strikes (1962-1966) occurred during takeoff—a critical flight stage. Bird management procedures at airports, therefore, should be directed particularly at the takeoff strike problem.
5. A large number of bird strikes involve aircraft windshields; and windshields of both commercial and private aircraft have been penetrated, with injury to crews in some instances. The problem may be more serious for light aircraft, since their windshields usually are not designed to withstand the impact of a 4-pound bird at cruise speeds. Consideration should be given to establishing higher windshield standards for small aircraft so there would be more resistance to bird impacts at cruise speeds.
6. A large proportion of the reported bird-plane strikes in 1966 resulted in damage to aircraft (commercial - 37 percent; private - 55 percent). Although damage is seldom severe, it is significant that strikes and damage have become rather

common events. Strikes do not appear to be decreasing. There are more aircraft in operation and they fly faster. All the evidence indicates that birds can be a serious hazard, are causing considerable damage, and probably will be an increasing problem unless remedial measures are accelerated.

7. Although much valuable information has been gained from voluntary reporting of plane strikes by commercial carriers (FAA Form 3830), many strikes are not reported and most reports are not complete. Consideration should be given to making the reporting mandatory for a period of at least 2 years, so that a baseline of at least 2 years data would be available for comparisons that should be made at 5-year intervals.

In conclusion, the present emphasis of the committee is to work with the Solid Waste Division of HEW to determine if the solid waste disposal granting program can in some way include bird hazards at airports as a prime factor in establishing HEW's granting priorities. In short, because certain airports have serious gull problems brought about by the close proximity of waste food, we would like to see HEW give a high priority to cities that request grants for solving garbage problems—garbage that contributes to bird hazards at airports serving such cities. Once the precedent can be established that garbage dumps in the vicinity of airports are a threat to air safety—just as TV towers are—then we would really be on our way toward remedial action.

DISCUSSION:

JACKSON: Thank you very much, John. Are there any brief questions of either John Seubert or Bob Brink? Jim Steckel.

STECKEL: John, I didn't get the significance of your statement about tower's warning pilots. What did you mean by this— that the towers are not warning pilots or that the pilots are not accepting the warning or that there is nothing a pilot can do even though he is warned?

SEUBERT: Well I can maybe say yes or no to all your questions. Based on the 1966 information which was based on this new reporting form, the pilots were asked if they had been alerted to the presence of birds prior to the strike and a certain percentage of them said "yes" and a certain percentage said "no." My point was that if the people in the tower didn't know of the presence of birds then there was no possible way for the pilot to be alerted. If they did know, they possibly didn't notify the pilots because of a lack of system or lack of communication.

STECKEL: What can a pilot do if he knows about it?

SEUBERT: Well, that's been bothering the pilots for a little bit. They're caught in a big air traffic bind where they're supposed to maintain certain speeds. A biologist can say, "Well, just slow down the airplane. Then if you hit one the

chance for serious damage will be less." But the air traffic people would reply that if you slowed down too many planes too much you're going to plug up the traffic pattern. It's a tough problem and we don't know the answer.

JACKSON: We have one question in the back.

OBERST: Relative to dumps around airports, there are private dumps just across the bay from Kennedy International Airport. We found there's very little you can do with those dumps. We were asked to quote on some of this work and we were able to get the necessary permits for it, etc. I found all of the conservation and Fish and Wildlife people very cooperative. And they were quite aware of the bird hazard. The only thing was when we got into the Newark area and the Kennedy area, the private dump people had little kingdoms of their own, and we had more trouble with them than we did with the city. And also birds were working on the sewage; there is some raw sewage which gets out into the bay there. On the whole I thought *that* part of the New York Port Authority was the most alert I saw around.

JACKSON: Thank you, Fred. One last question.

BORTZ: Are the air strikes greatest in the fall of the year because of migration?

SEUBERT: Yes, there are more birds at that time of the year and they're moving.