

CHAPTER 3

AGENCIES AND ORGANIZATIONS IMPACTING WILDLIFE HAZARD MANAGEMENT AT AIRPORTS



The pilot of this NATO Airborne Warning and Control System aircraft (modified Boeing-707) rejected takeoff following a bird ingestion at Aktion Air Force Base in Greece, July 1996. The plane slid off the runway, suffering extensive damage.

3.1. INTRODUCTION

Wildlife management is a complex mixture of science, experience and art, regulated and implemented by various federal, state, and local governmental agencies. Wildlife and associated wildlife habitat often are protected by overlapping federal, state, and local regulations that are enforced by various governmental organizations. This chapter provides an overview of the roles and responsibilities of various agencies and organizations that influence wildlife management at or near airports.

3.2. FEDERAL AGENCIES¹

3.2.a. Federal Aviation Administration

3.2.a.i. Mission

The mission of the Federal Aviation Administration (FAA) is to provide a safe, secure, and efficient global aviation system that contributes to national security and the promotion of U.S. aviation. As the leading authority in the international aerospace community, the FAA is responsive to the dynamic nature of customer needs, economic conditions, and environmental concerns.

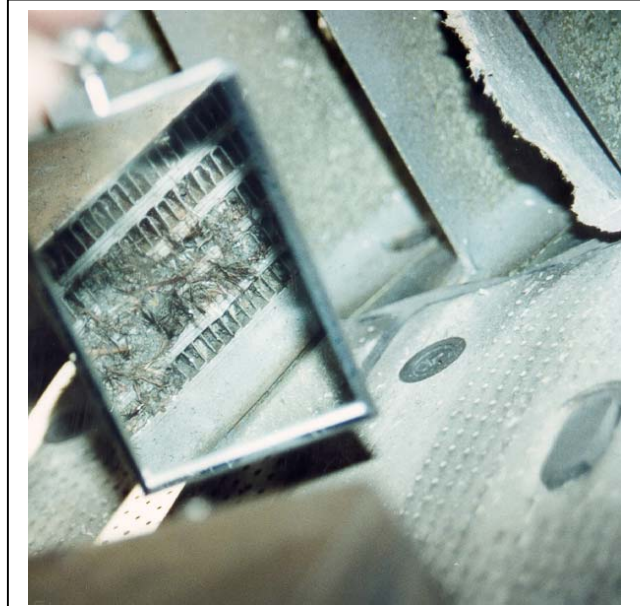
3.2.a.ii. Authority

Since 1970, Section 612 of the Federal Aviation Act of 1958, as amended, (49 U.S.C. 1432) has empowered the FAA Administrator to issue airport operating certificates to airports serving certain air carriers, and to establish minimum safety standards for the operation of those airports. Some of these regulations and policies directly involve the management of wildlife and wildlife hazards on and/or near airports.

3.2.a.iii. Role and Responsibility

The FAA is responsible for enforcement of Title 14 Code of Federal Regulations, part 139 (14 CFR 139). To carry out this role, the FAA has responsibilities for various aspects of aviation which include air navigation, air traffic control, aviation certification and regulation, aviation security, environmental impact minimization, and aviation research and development.

The FAA roles and responsibilities relating to wildlife hazards and their associated human health and safety concerns are addressed in 14 CFR 139.337. The FAA's Office of Airport Safety and Standards has published Advisory Circulars (AC 150/5000



Following a bird ingestion, National Transportation Safety Board (NTSB) inspectors used a mirror to examine the constant speed drive (CSD) oil cooler in this engine on a Boeing-737. Note the feathers shown in the mirror and the damaged compressor blade in the background. (Photo courtesy NTSB)

¹ Much of the information in this section was adapted from Chapter 2 of *Managing Wildlife Hazards at Airports*, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, June 1998 (used with permission).

series), Certalerts, and Program Policy and Guidance Directives which further clarify this information.

3.2.a.iii.a. Office of Airport Safety and Standards

A staff wildlife biologist is assigned to the Office of Airport Safety and Standards, Washington DC. The biologist works with airport operators and certificate holders through the FAA regional and district offices in matters related to wildlife hazards at airports. Responsibilities of the staff wildlife biologist include: reviewing development plans for certificated airports to minimize wildlife hazards; managing the wildlife aircraft strike database designed to document the history of reported strikes at airports throughout the United States and its territories; and serving as an internal consultant to the FAA regarding the appropriateness of Wildlife Hazard Management Plans, wildlife hazard research, and other wildlife management issues of concern to the FAA.

The FAA staff wildlife biologist examines all wildlife aircraft strike reports submitted to the FAA. Copies of significant strike reports (see Chapter 6 and 14 CFR 139.337[a][1-3]), together with the strike history for the particular airport, are forwarded to the appropriate FAA regional personnel. See also FAA, Office of Airport Safety and Standards' Policies and Program Guidance Policy No. 64, *Review of Airport Wildlife Hazard Management Plans* (Appendix D).

3.2.a.iii.b. Wildlife Hazard Assessments

Certificated airports are required by regulation to conduct an Ecological Study² when specific wildlife events occur as discussed in Chapter 6 (14 CFR 139.337[a][1-3]). FAA, Office of Airport Safety and Standards' Program Policy and Guidance No. 53 (Appendix D) establishes the procedures that FAA Airport Certification Safety Inspectors should follow when it is determined that an airport needs to conduct a Wildlife Hazard Assessment. Under terms of the Memorandum of Understanding between the FAA and U.S. Department of Agriculture, Wildlife Services (USDA/WS, Appendix G), the USDA/WS program can provide assistance with the conduct of Wildlife Hazard Assessments and the development of Wildlife Hazard Management Plans. FAA Office of Airport Safety and Standards' Certalert No. 97-02 (Appendix E) further clarifies the roles of, and relationship between the FAA and USDA/WS with regard to wildlife hazards on or near airports. See Chapter 6 for a discussion of the contents of a Wildlife Hazard Assessment.

² USDA, Wildlife Services, uses the term "Wildlife Hazard Assessment." 14 CFR 139.337(a) uses the term "Ecological Study." In this context the two terms should be considered synonymous. Wildlife Hazard Assessment is the preferred term because it is more descriptive of what is actually being done.

3.2.a.iii.c Wildlife Hazard Management Plans

The FAA considers the Wildlife Hazard Assessment, aeronautical activity at the airport, views of the airport operator and its users, and other pertinent factors in determining whether or not a Wildlife Hazard Management Plan is needed (14 CFR 139.337[c][1-5]). See Chapter 6 for a discussion of the contents of a Wildlife Hazard Management Plan.

3.2.a.iii.d Advisory Circulars, Policy Statements, and Certalerts

Advisory Circulars (ACs) are issued to provide guidance and information in a designated subject area or to show a method acceptable to the Administrator for complying with a related Federal Aviation Regulation. The FAA issues ACs to inform the aviation public in a systematic way of non-regulatory material. Unless incorporated into a regulation by reference, the contents of an AC are not binding on the public.

Policy Statements provide FAA headquarters' guidance on interpretation of the regulatory requirements and provide background on the meaning of sections of the regulations.

Certalerts provide timely information to Airport Certification Safety Inspectors and airport operators on a broad range of safety and airport certification related subjects. They are advisory in nature, non-directive, and have no regulatory authority.

FAA Advisory Circulars, Policy Statements, and Certalerts germane to airport wildlife issues can be found in Appendices C, D, and E, respectively.

3.2.b. U.S. Department of Agriculture/Wildlife Services

3.2.b.i. Mission

The mission of U.S. Department of Agriculture/Wildlife Services (USDA/WS) is to provide federal leadership in managing problems caused by wildlife. USDA/WS helps manage wildlife to reduce damage to agriculture, natural resources and property; minimizes potential threats to human health and safety; and assists in the protection of threatened and endangered species.



USDA, Wildlife Services personnel will provide assistance in evaluating and reducing wildlife hazards at and in the vicinity of airports. (Photo by E. C. Cleary, FAA)

3.2.b.ii. Authority

The primary statutory authority for the USDA/WS program is the Animal Damage Control Act of 2 March 1931, as amended (7 U.S.C. 426-426c; 46 Statute 1468)(See Appendix B).

USDA/WS has the authority to manage migratory bird damage only as specified in the Code of Federal Regulations and under permits issued by the U.S. Fish and Wildlife Service (USFWS) (50 CFR 21). USDA/WS does not have the authority to issue migratory bird depredation permits.

3.2.b.iii. Role and Responsibility

Wildlife is a public resource greatly valued by the citizens of the USA. However, wildlife can cause damage to agricultural and industrial resources, pose risks to human health and safety, and impact other natural resources. USDA/WS has the federal responsibility to help resolve conflicts that occur when human activity and wildlife are in proximity to one another. USDA/WS has primary responsibility of responding to threats caused by migratory birds.

ADC Directive 2.305, Wildlife Hazards to Aviation, (Appendix F) provides guidance for USDA/WS wildlife biologists in providing technical assistance or direct control to airport managers, state aviation agencies, the aviation industry, the FAA, and the Department of Defense (DOD) regarding hazards caused by wildlife to airport safety.

USDA/WS assists federal, state, and local agencies, airport managers, the aviation industry, and the military in reducing wildlife hazards on and in the vicinity of airports and air bases according to the Memoranda of Understanding with FAA and Department of Defense, and guidelines published elsewhere.

In addition, it is the responsibility of USDA/WS personnel that observe existing or potential wildlife hazards at airports or air bases to immediately notify the appropriate aviation authorities.

USDA/WS may enter into cooperative agreements to develop Wildlife Hazard Assessments, Wildlife Hazard Management Plans, and to conduct direct wildlife hazard reduction programs. These activities are performed pursuant to agreements that are funded by cooperating entities.

USDA/WS biologists may provide training for airport and air base personnel in wildlife hazard identification and the safe and proper use of wildlife control equipment and techniques.

USDA/WS biologists may provide recommendations and assistance to airport managers and air base commanders in obtaining federal, state, and local permits to remove protected wildlife species.

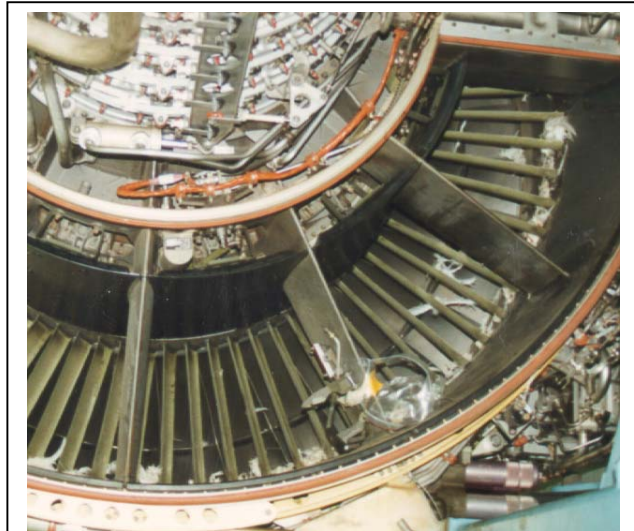
3.2.c. U.S. Department of Defense

3.2.c.i. Mission

The Department of Defense (DOD) is responsible for providing the military forces needed to deter war and protect the security of the United States.

3.2.c.ii. Authority

The DOD is the successor agency to the National Military Establishment created by the National Security Act of 1947 (50 U.S.C. 401). It was established as an executive department of the Government by the National Security Act Amendments of 1949 with the Secretary of Defense as its head (5 U.S.C. 101). The DOD's primary authority is established under 32 CFR 1-2900.



A gull was ingested into this engine on a USAF KC-10 aircraft during taxiing. The engine, although not damaged, had to be disassembled and inspected. (Photo courtesy NTSB)

3.2.c.iii. Role and Responsibility

Each military department (Department of the Navy includes the U.S. Marine Corps) is separately organized under its own Secretary and functions under the authority, direction, and control of the Secretary of Defense. The commanders of unified and specified combat commands are responsible to the President and the Secretary of Defense for accomplishing the military missions assigned to them and exercising command authority over forces assigned to them.

The U.S. Air Force's (USAF) Bird Aircraft Strike Hazard (BASH) Team, HQ Air Force Safety Center, Kirtland Air Force Base, New Mexico, oversees the USAF wildlife strike reduction efforts. The BASH team maintains a wildlife strike database for strikes involving USAF aircraft (www.afsc.saia.af/mil/AFSC/Bash) similar to the database maintained by the FAA for civil aircraft (Chapter 2).

3.2.d. U.S. Environmental Protection Agency

3.2.d.i. Mission

The mission of the U.S. Environmental Protection Agency (USEPA) is to safeguard the nation's environment.

3.2.d.ii. Authority

The USEPA was established in 1970 in response to concerns about polluted air and rivers, unsafe drinking water, endangered species, and waste disposal. The USEPA's primary regulatory responsibilities are established under 40 CFR 1-799.

3.2.d.iii. Role and Responsibility

USEPA functions include setting and enforcing environmental standards and regulations related to air and water pollution, hazardous wastes, pesticides and toxic substances. The USEPA's mission is accomplished through partnerships with state and local governments. USEPA responsibilities include pesticide registration and regulation, siting and construction of wastewater treatment and solid waste disposal facilities, which are permitted through state and local agencies. FAA and USDA/WS may be consulted by airport authorities or state and local agencies to review impacts of proposed USEPA-regulated projects on aviation safety.

3.2.d.iii.a Landfills

Approval or disapproval of a landfill site is the responsibility of the USEPA, state and local governing bodies, and zoning boards. Other federal agencies, such as the FAA, may only comment as to whether or not they would consider the proposed landfill to be compatible or non-compatible with their mission requirements.

3.2.d.iii.b. Pesticides

Before any pesticide may be used, it must be registered with the USEPA, and with the appropriate state pesticide regulating authority. Pesticides are generally classified as either restricted use or general use. Restricted-use pesticides may only be sold to and used by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. There are few restrictions on who may purchase or use general use pesticides. Persons who want to use restricted-use pesticides, or apply any pesticide to the land of another, or apply any pesticides for hire must be a Certified Applicator, or working under their direct



Landfills often attract birds, such as these turkey vultures, that pose hazards to aircraft. The USEPA requires that certain landfills be operated in a manner that does not pose a bird hazard to aircraft (see Chapter 4). (Photo by E. A. LeBoeuf, USAF)

supervision, and then may only use pesticides covered by the Certified Applicator's certification (see state EPA below).

3.2.e. U.S. Department of Interior/Fish and Wildlife Service

3.2.e.i. Mission

The mission of the U.S. Fish and Wildlife Service (USFWS) is to conserve, protect, and enhance the nation's fish and wildlife and their habitats for the continuing benefit of all people.

3.2.e.ii. Authority

The USFWS has management authority for migratory birds and federally listed threatened and endangered wildlife species. The USFWS primary regulatory responsibilities are established under 50 CFR 1-199.

3.2.e.iii. Role and Responsibility

The USFWS is responsible for the conservation and enhancement of migratory birds, threatened and endangered species, certain marine mammals, freshwater and anadromous fishes, and wetlands. The USFWS also manages the National Wildlife Refuge System, enforces federal wildlife laws, and conducts biological reviews of the environmental impacts of development projects.

The USFWS renders biological opinions on proposed federal activities that may impact federally listed or proposed endangered or threatened species, or result in the destruction or adverse modification of designated or proposed critical habitat. These opinions are solicited through a "Section 7 consultation" as required under the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Statute 884, as amended).



The resident Canada goose population in the USA more than tripled from 1985-1998 to almost 3 million birds. These geese are extremely adaptive and readily establish nesting territories on golf courses, urban ponds, airports or even flat roofs. From 1990 to 1998, geese were involved in 19% of all reported bird strikes that caused damage. (Photo by E. C. Cleary, FAA)

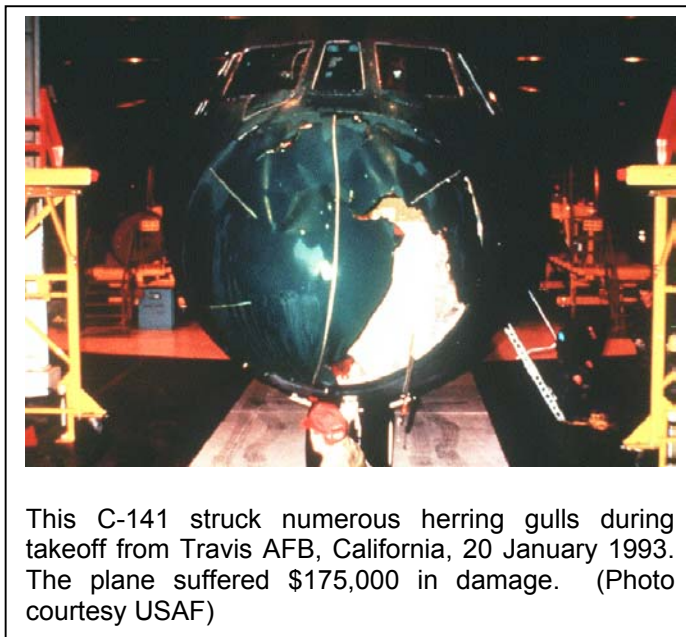
3.2.f. U.S. Army Corps of Engineers

3.2.f.i. Mission

The U.S. Army Corps of Engineers (COE) is charged with a wide range of water resources related functions. Among these are the protection of navigation and safeguarding the nation's water resources.

3.2.f.ii. Authority

Regulatory authorities of the COE include Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) which prohibits the obstruction or alteration of navigable waters of the U.S. without a COE permit; Section 404 of the Clean Water Act (33 U.S.C. 1344) which regulates the excavation and discharge of dredged or fill materials into waters of the U.S.; and Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 which regulates deposition of fill material into ocean waters.



3.2.f.iii. Role and Responsibility

The COE regulatory branch administers a permit system under Section 404 of the Clean Water Act. All proposed management actions involving any wetland habitat modification or excavation of fill material from or discharged into waters of the U.S. must be evaluated for Section 404 applicability and permit requirements. Projects requiring permits may require mitigation for impacted resources.

3.3. STATE AGENCIES

Specific state regulations and their enforcement are not addressed in this manual because of their wide variability. The following general comments are provided as background information.

State and local regulatory agencies that should be consulted when working with airport wildlife issues are those with jurisdiction over wildlife and natural resources, environmental protection, health, law enforcement, transportation and others, as applicable.

3.3.a. State Wildlife Management Agencies



It may be necessary to obtain both a federal and a state Wildlife Depredation Permit before taking any migratory birds as part of an airport wildlife management program. (Photo by E. C. Cleary, FAA)

Wildlife management authority for resident nonmigratory birds, terrestrial mammals, freshwater fish, amphibians, and reptiles rests with state wildlife management agencies. These agencies establish the take and possession regulations for all state-protected species. States set their migratory game-bird hunting seasons and bag limits within the guidelines established by the USFWS. States also may list certain wildlife and plant species as threatened or endangered that are not considered as such at the federal level.

Persons needing to take state-protected species outside of the legal hunting

season or beyond the established bag limits to promote airport safety must first secure a state depredation permit. Contact the nearest USDA/WS office (Appendix A) for assistance in obtaining any necessary state depredation permits.

3.3.b. State Environmental Protection Agencies

3.3.b.i. Landfill Siting Permits, Inspections

With concurrence from the USEPA, state EPAs and local governing bodies have the final responsibility for issuing landfill permits. It is also a state responsibility to inspect all landfills to insure compliance with all applicable federal and state regulations.

3.3.b.ii. Pesticide Registration

Before a pesticide may be sold or used, it must be registered with the USEPA and with the respective state's pesticide regulatory agency. Special Local Need (SLN) registered pesticides may only be used in the state, and in some cases the specific geographical location, for which the SLN registration has been issued.

3.3.b.iii. Pesticide Applicator Licensing

With USEPA concurrence, each state is responsible for establishing pesticide applicator licensing requirements and applicator training procedures. The retail sale and use of restricted use pesticides is limited to Certified Applicators or persons working under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Any person who uses restricted-use pesticides, applies any pesticides for hire, or applies any pesticide to the land of another, must be a Certified Applicator or working under the direct supervision of a Certified Applicator and may only use pesticides covered by the Certified Applicator's certification.

3.4. AIRPORTS

3.4.a. Airport Operator

The operator of a certificated airport must demonstrate that the airport is properly and adequately equipped and programs are in place to provide a safe airport-operating environment in accordance with all sections of 14 CFR 139 subpart D. Included in this regulation is the need to address wildlife hazard issues, conduct Wildlife Hazard Assessments, and develop Wildlife Hazard Management Plans as conditions dictate.



Airport operators must take immediate action to eliminate wildlife hazards any time they are detected. (Photo by E. A. LeBoeuf, USAF)

Notwithstanding other requirements, each certificate holder must take immediate measures to alleviate wildlife hazards whenever they are detected (14 CFR 139.337(f)). The airport operator should establish procedures for airport employees or tenants to report hazardous wildlife on or near aircraft movement areas to the appropriate airport personnel.

3.4.b. Air Traffic Control

To the extent permitted by higher priority duties and other circumstances, air traffic controllers are required to:

- Issue advisory information on pilot-reported, tower-reported, or radar-observed and pilot-verified bird activity;
- Relay bird activity information to adjacent facilities and to Flight Service Stations (FSS) whenever it appears the wildlife hazard will become a factor in their area. (FAA Order 7110.65, 2-1-22)

3.4.c. Pilots

Pilots have a responsibility to report all unsafe conditions on or near an airport, including birds or other wildlife that could pose a threat to aircraft safety. Pilots and other airline or airport personnel should report all known wildlife strikes. Strikes can be reported by completing and mailing FAA Form 5200-7 *Bird/Other Wildlife Strike Report* (Appendix G). No postage is required if this form is mailed within the United States. This form

may be duplicated as needed. Strikes can also be reported electronically at <http://wildlife.pr.erau.edu/strikeform/birdstrikeform.html>. All strike reports are closely screened and edited to prevent duplicate entries in the database.

3.5. BIRD STRIKE COMMITTEE - USA

Bird Strike Committee-USA (BSC-USA) was formed in 1991 to facilitate the exchange of information, promote the collection and analysis of accurate wildlife strike data, promote the development of new technologies for reducing wildlife hazards, promote professionalism in wildlife management programs at airports through training and advocacy of high standards of conduct of airport biologists and bird patrol personnel, and be a liaison to similar organizations in other countries.

Bird Strike Committee USA is directed by an 8-person steering committee consisting of 2 members each from the FAA, USDA/WS, DOD, and the aviation industry's Wildlife Hazards Working Group. The organization meets annually in conjunction with Bird Strike Committee Canada (BSCC). The meeting site alternates between Canada and the USA. There are generally 4 parts to a BSC-USA/BSCC meeting. Part 1 consists of presentations of papers or reports. Part 2 is a vendor and poster session. Part 3 is a training session on wildlife control at airports which covers both civil and military aviation. Part 4 is a field trip which generally covers the host airport and areas off the airport which pertain to aviation or aviation safety. Participation in the annual meetings is open to any person interested in reducing wildlife hazards to aviation and in wildlife management at airports. BSC-USA does not charge membership fees; however, a nominal registration fee is charged for attendance at annual meetings.



This pilot suffered severe head lacerations when a gull penetrated the canopy of his aircraft shortly after takeoff from a California airport, November 1998. (Photo by J. R. Dodd, Airport Manager)

Additional information about BSC-USA can be found at BSC-USA's web site: <http://www.birdstrike.org>.