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WS Assistance at Airports

Protecting agriculture, property, and natural resources from wildlife damage is the mission of the U.S. Department of Agriculture's Wildlife Services (WS) program. WS also addresses wildlife threats to public health and safety. Birds and other wildlife can pose significant threats to both human safety and property when they appear near airports. Through a balanced effort involving research and wildlife management, WS biologists are reducing the incidence of wildlife-caused damage to U.S. aviation.



Ring-Billed Gull

Wildlife Problems at Airports

The wings of planes and the wings of nature often compete for the same airspace at the same time. When that happens, collisions may occur, sometimes resulting in injuries or death to passengers and crew and damage to aircraft. To help prevent these potentially dangerous interactions, WS biologists provide airport operators across the Nation with advice and recommendations on how to keep runways and flight paths clear of wildlife. Problem species include deer, coyotes, waterfowl, gulls, blackbirds, pigeons, hawks, starlings, vultures, and others.

Airports in the Eastern and Southeastern United States experience the greatest number of wildlife-aircraft collisions, but the problem exists nationwide. The Federal Aviation Administration (FAA) estimates that birds and other wildlife threaten human safety and cause more than \$390 million in damage each year to civil aircraft in this country. U.S. military

aircraft incur more than \$100 million in wildlife damage annually. Indirect costs, such as flight delays, aircraft changes, and loss of revenues, add immeasurably to direct costs.

The History of Wildlife Strikes

The first reported wildlife-aircraft strike that resulted in a fatality occurred on April 12, 1912, when a Model EX Wright Pusher collided with a gull and crashed into the ocean, killing the pilot. Since then, more than 400 people have been killed worldwide as a result of bird-aircraft collisions.

- In 1960, a plane taking off from Boston's Logan Airport struck a large flock of starlings and went down, resulting in 62 human deaths.
- In 1973, a jet crashed shortly after takeoff from the DeKalb-Peachtree Airport in Georgia after colliding with cowbirds, killing eight people on board and injuring one person on the ground.
- In 1975, a plane sucked herring gulls into one of its engines at John F. Kennedy International Airport (JFKIA). The engine exploded and separated from the aircraft, the takeoff was aborted, and the plane caught fire and was destroyed. Fortunately, no fatalities occurred, largely because all 139 passengers were airline employees trained in evacuation procedures.
- In 1991, a plane carrying 350 passengers aborted takeoff at JFKIA after gulls were drawn into one of its engines. Although no one was seriously injured, the aircraft's brakes and tires were destroyed during the aborted, high-speed takeoff.
- In 1992, a twin-engine, turbo-prop commercial aircraft struck a white-tailed deer while landing at Laredo International Airport in Texas, resulting in extensive damage to the propeller and fuselage.
- In 1993, just one herring gull in the left engine of a plane carrying 158 passengers out of Chicago's O'Hare International Airport shut the engine down, necessitating an emergency landing. Damage to the plane was estimated at \$1.5 million.
- On two separate occasions in 1994, commercial aircraft struck a coyote during takeoff at O'Hare.
- In 1997, an MD-80 aircraft struck more than 400 blackbirds after takeoff from Dallas-Fort Worth International Airport. The pilot made an emergency landing and returned to the airport safely, but the plane sustained substantial damage. Following the collision, approximately 100,000 blackbirds were found roosting near the airport.
- In 1999, several snow geese were sucked into the engines of a DC-9 cargo plane making its final descent into Kansas City International Airport. One engine was destroyed and the other lost 50 percent of its power, but the pilot was able to land safely.



White Tailed Deer

- In 2000, the engine of a B-747 was destroyed in a fiery explosion after being struck by a Western gull following takeoff from Los Angeles International Airport. Parts of the engine fell onto a public beach and the pilot was forced to dump 83 tons of jet fuel over the ocean before safely landing the aircraft, which was carrying 449 passengers.
- In 2001, a Learjet collided with two deer on the runway at Troy Municipal Airport in Alabama. The aircraft ran off the runway and burst into flames. Firefighters kept the flames at bay for 40 minutes until the pilots could be rescued.

How WS Helps

When airports experience wildlife conflicts, the FAA, through a Memorandum of Understanding, encourages airport officials to contact WS. In 2000, WS biologists provided assistance in reducing wildlife

hazards at 418 airports nationwide. Programs to control wildlife hazards at airports are often ecologically and legally complex and require considerable professional expertise in wildlife damage management. WS biologists offer technical and direct operational assistance to airport managers and are available to conduct onsite evaluations of wildlife problems at the airport. All WS programs are conducted pursuant to Federal and State laws, regulations, and policies.

These rules and regulations allow WS biologists to recommend the use of noise-making devices, such as pyrotechnics, propane cannons, and bird-distress tapes. In addition, WS provides guidance on how to modify habitats to make airports unattractive to wildlife. These recommendations include reducing water and garbage sources at the airport; installing wildlife-resistant fences; modifying or removing vegetation, trees, and roosting sites; and trapping and relocating wildlife. If these techniques fail, the Department of the Interior's U.S. Fish and Wildlife Service or the State's wildlife department may issue a permit to remove a limited number of the problem species from the airport.

WS' National Wildlife Research Center conducts research on new harassment methods, wildlife behavior, habitat management, and how activities at landfills near airports affect bird-aircraft strikes. This research helps WS develop new integrated ways to minimize wildlife hazards at airports. Additionally, WS biologists are active in a number of professional groups, such as The Wildlife Society, the American Association of Airport Executives, and Bird Strike Committee-USA. The latter organization facilitates the exchange of information, supports research, develops new technologies, provides training, and acts as a liaison to other national bird strike committees. WS has more than 100 certified wildlife biologists who assist airports and airfields nationwide in monitoring hazards and developing control strategies to protect human safety and to conserve wildlife resources.

Additional Information

You may obtain more information about the WS program from any State APHIS, WS office. For the address and telephone number in your area, call the WS Operational Support Staff at (301) 734-7921. To learn more about the program, you can also visit the WS Web site at <http://www.aphis.usda.gov/ws>.

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