Anticipated Questions about Wildlife Hazards at Airports

On September 9, 2016, Warner Brothers will release “Sully: The Untold Story of the Miracle on the Hudson” (www.sully-movie.com/#home). Airport operators and other stakeholders may receive inquiries about bird/wildlife strikes and wildlife management. BSC USA consulted with airport media staff and committee members to develop a list of airport-specific questions/information that could be prepared prior to a media request and a list of potential questions for airports and stakeholders to consider. Additional information can be found on the BSC USA website (www.birdstrike.org).

Questions for Airport Operators

- Has your airport had a wildlife strike? If so, how many per year? Per month?
- What types of wildlife have been struck (identify species)?
- Has there ever been a damaging wildlife strike at your airport?
- Has there ever been a Canada goose strike like flight 1549 or with other waterfowl (ducks, geese, swans)?
- What does your airport do to manage wildlife hazards (e.g., Wildlife Hazard Assessments (WHA), Wildlife Hazard Management Plans (WHMP), specific strategies in place)?

1. How often do wildlife strikes occur?
Wildlife strikes are relatively infrequent! In 2015, more than 24.5 million commercial aircraft movements occurred in the US and approximately 12,250 wildlife strikes with commercial aircraft were reported (an average of 34/day or 0.0005 percent of aircraft movements). Only 3 percent of the strikes (340 strikes) resulted in aircraft damage. Less than 1 percent of the strikes (80 strikes) caused substantial aircraft damage.

2. What is the cost of a wildlife strike?
Wildlife strikes can be costly in terms of dollars and human lives. Since 1990, 12 civil aviation strikes resulted in a total of 26 fatalities. More than $500 million in damage to US civil aviation is incurred annually.

3. Can bird strikes be prevented?
Commercial airport operators nationwide are required to prepare Wildlife Hazard Management Plans (WHMP) to address the types of wildlife that occur on and near their airports. Using resources and available funding provided by FAA and others, airport operators can reduce the potential wildlife risks by:

- Modifying airport conditions and habitats to make their airports less attractive to wildlife (constructing fences, removing open water, managing on-site vegetation, etc.).
- Actively discouraging wildlife using tools such as pyrotechnics to scare birds away and traps to relocate wildlife.
- Working with qualified airport wildlife biologists to address specific species or hazards.

Although strikes are not always preventable, airport operators can use available tools and techniques to discourage wildlife from airports. Researchers are also investigating devices and methods to deter birds from aircraft while in flight.

4. What changes have occurred in monitoring strikes and wildlife at airports since US Airways Flight 1549?
The FAA has addressed wildlife hazards for many years. In 1990, the FAA created the National Wildlife Strike Database to gather data regarding wildlife strikes and their effects. Pilots and airport staff voluntarily report wildlife strikes. Since Flight 1549, the FAA has increased its outreach to airport operators and pilots and provided additional options for strike reporting including the use of electronic report forms and an app. In addition, the FAA has funded hundreds of ecological studies, known as Wildlife Hazard Assessments (WHA), and WHMP at airports nationwide. These studies provide the scientific foundation for each airport’s WHMP to mitigate the risk of strikes.

5. Is avian radar used at airports to help reduce the risk of bird strikes? Do air traffic controllers and pilots currently use avian radar?
FAA developed guidance on the use of avian radar systems to supplement an airport’s effort to identify bird flight paths and document potential daily or seasonal movement trends. Currently, avian radar information is not formally sent to pilots or air traffic controllers to identify wildlife locations. FAA is examining potential processes/procedures to relay this information effectively.
6. **Do we know why birds are drawn to aircraft engines?**

Birds are not attracted to aircraft engines, but birds can be ingested if they do not react quickly enough to avoid an approaching aircraft. Modern aircraft have more powerful turbofan engines with larger intakes, which make it more difficult for birds to react in time. It’s important to remember that engine ingestion is a relatively rare event. Thousands of bird strikes are recorded every year, and only about 3% result in aircraft damage.

7. **Who is ultimately “responsible” for a bird strike?**

The FAA is responsible for providing regulations and policies pertaining to wildlife hazards. Pilots are responsible for the safe operation of their aircraft. Airport operators are responsible for managing the airport property and taking measures, such as those documented in WHMP, to provide a safe aircraft operations area. However, wildlife behavior is dynamic and creates a challenging environment for airport operators.

8. **What have airlines and aircraft manufacturers done to help prevent wildlife strike damage?**

Today’s aircraft are designed and certified with many redundant systems. If a strike causes any damage that can affect flight safety or degrade the systems of the aircraft, the Pilot-in-Command will work with the crew, company maintenance personnel via radio, or ACARS messaging, and then decide whether to exercise emergency authority, divert the flight, or return to the point of origin.

9. **What does the public need to know about bird strikes, and can the public help?**

The public needs to understand that wildlife strikes occur, but they are infrequent and rarely cause damage. The public should be assured that airport operators nationwide continue to implement and improve wildlife hazard management and strike prevention measures. The public can help! Passengers or airport visitors should NEVER feed wildlife on or near airports. Garbage should always be deposited in covered containers. Local jurisdictions should prohibit land uses that are attractive to large numbers of birds within 2 miles of runways.

10. **What birds or wildlife pose the greatest hazards to airplanes?**

The larger the bird, the greater the impact upon contact. A moving aircraft can strike a 1 lb. bird with 2.5 tons of force! Even small birds can pose a hazard when they travel in flocks. Canada geese, which struck Flight 1549, are especially hazardous because they are both large and travel in flocks. According to a recent report by the FAA and USDA, wildlife that account for most of the damaging strikes (total damage or frequency in the FAA database) include deer, waterfowl, raptors, doves/pigeons and shorebirds. ([www.faa.gov/airports/airport_safety/wildlife/media/Wildlife-Strike-Report-1990-2014.pdf](http://www.faa.gov/airports/airport_safety/wildlife/media/Wildlife-Strike-Report-1990-2014.pdf))