

Red-tailed hawks are an increasing threat around airports



Splat

The Story of Snarge

“Accidental” Meetings Between Airplanes and Wildlife

Photo by John R. Weller

JAMES WILLIAMS

Snarge: (*snärj*) n. It’s the word used for what is left of a bird after it strikes an aircraft. It’s not pretty...and neither are the results of most bird collisions with aircraft, which seem to be increasingly common. Anecdotes abound. On a recent road trip with an old friend, who happens to be a regional jet captain, talk turned to hangar flying. “I seem to be having a lot of bird strikes lately,” he said. In the wake of US Airways Flight 1549’s miraculous landing in the Hudson River, public attention focused sharply on one of aviation’s most chronic problems: wildlife strikes. As my friend reported, “One strike on landing was so bad we had to take the aircraft out of service and ferry it back to the manufacturer, unpressurized. The birds did enough damage to the pressure vessel that we didn’t want to risk it.”

That was a wise decision. During an accident investigation training course I attended a few months ago, instructors described a 2008 accident in Oklahoma. Two minutes after takeoff from Wiley Post Airport in Oklahoma City, a Cessna Citation entered a steep descent and crashed, killing all five on board. The National Transportation Safety Board (NTSB) determined that the cause of the accident was wing-structure damage from a bird strike, which resulted in loss of control.

A Growing Concern

Just how big is the problem?

“Wildlife strikes are probably the most pressing issue we face in the airports world,” says Brian Rushforth, manager of the FAA’s Airport Safety and Operations Division. Over the past 20 years, the problem of wildlife strikes has only gotten worse. According to the U. S. Department of Agriculture (USDA), 13 of the 14 largest bird species have shown significant population increases. These include Canada geese, white and brown pelicans, sandhill cranes, wild turkeys, and bald eagles. Populations of many other hazardous species, such as turkey vultures, snow geese, red-tailed hawks, ospreys, great blue herons, double-crested cormorants, and white-tailed deer also have increased dramatically. Adding to the challenge is the fact that most of these species have adapted to living in urban environments, including airports.

Experts put the total losses for wildlife strikes at \$625 million per year in direct damage and associated costs, and over 600,000 hours of aircraft downtime. In an industry that runs on razor thin margins at virtually every level, those losses could be crippling. Financial losses pale in comparison with the loss of life that occurs in some wildlife strikes.

While birds make up 97 percent of those strikes, they aren't the only problem. Between 1990 and 2009, there were 964 reported deer strikes in the U.S. In 2009, there were 9,253 reported bird strikes. That works out to more than one strike per hour, every day of the year. And that's not counting the fact that experts believe that more than 60 percent of bird strikes go unreported.

"Although strike reporting has increased significantly during the last two decades, there are reporting gaps from certain airports and airlines that need to be filled," says FAA's National Wildlife Biologist John Weller. "Larger part 139 airports, and those with well-established wildlife hazard management programs, have reporting rates about four times higher than other part 139 airports."

"Furthermore," Weller says, "GA airports that are part of the National Plan of Integrated Airport Systems (NPIAS) comprise only 6 percent of the overall strikes reported into the database, yet have

accounted for 67 percent of reported civil aircraft destroyed or damaged beyond repair due to wildlife strikes from 1990 to 2008."

"Despite reporting gaps, both the quality and quantity of strike reports being submitted have steadily increased," says Weller, "but we can still do better." Weller points out that species identification is only provided in about 45 percent of all reported strikes and that the estimated and/or actual cost of the strike event is typically not provided. According to Weller, both are "critical pieces to understanding a complicated puzzle."

With this in mind, Rushforth has laid out steps that the FAA has taken to help improve the reporting process. "We've worked hard to make reporting a strike as easy as possible. We've got a website, and we have now made it possible for you to report

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Exploding Canada geese populations have become a huge problem for airports



Photo by John R. Weller



One mitigation strategy is to use tame natural predators for drive away threats.


wildlife strikes directly from your smartphone. We are trying to get the word out to pilots as much as possible.”

What Can I Do?

Anecdotes are not enough to get a handle on the true magnitude of the issue. As Rushforth observes, one of the biggest challenges that wildlife managers at airports face today is the lack of good data.

To improve that data, the FAA has worked to make reporting wildlife strikes much easier. Simply navigate to: <http://wildlife.faa.gov> and click “report a strike.” As noted earlier, you can even do it from your smartphone.

The form also includes instructions for safely collecting remains whenever possible. Though admittedly distasteful, the remains are critical to helping airport wildlife managers create better mitigation strategies. These strategies differ according to species. For instance, the methods used to drive off a hawk are different from those that would be effective against a starling. As outlined on the website, the remains—generally feathers—should be sent to the Smithsonian, which provides identification services free of charge to U.S.-registered aircraft owners and operators. If feathers are not available, even a swab of the biological material (a.k.a. snarge) can help experts determine the species through DNA.

If we all pitch in and help improve the data, we can create safer skies through better mitigations. 

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The FAA has made it possible to report wildlife strikes directly from your smartphone.



Learn More

Guidebook for Addressing Aircraft/Wildlife Hazards at GA Airports

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_032.pdf