

Bird Strikes – Are You Prepared?

On a fall day in 2011, an emergency medical service helicopter was traveling at about 100 knots and around 1,000 feet above ground level (AGL) when the pilot began preparations for final approach. A patient, a relative of the patient, and two EMS crew members were on board.

The incident report states that just before the pilot lowered his visor, a pair of mallard ducks smashed through the windscreen and hit the pilot in the face. Bird remains and the rush of air into the aircraft stunned and momentarily blinded the pilot. As noted in the report, the helicopter plunged about 500 feet.

The pilot lost a few teeth and suffered a damaged jaw, a broken nose, and temporary numbness in his left arm, but he managed to safely land the helicopter. The initial pilot report stated: “Bird strike, landing uneventful.” But as radio commentator Paul Harvey once stated, “Now you know the rest of the story.”

A report this dramatic doesn’t usually land on my desk. However, it illustrates a growing problem caused partly by the combination of an increasing population of large birds and quieter helicopters that give birds less warning that a major object is in their path.

Wildlife strikes have killed more than 231 people and destroyed more than 220 aircraft of all types worldwide since 1988, according to a July 2012 report from the FAA and the U.S. Department of Agriculture – and the report’s authors consider that number to be a conservative estimate.

Most (116,408) of the 119,917 reported strikes from 1990 through 2011 against civil aircraft in the United States involved birds. The number of bird strikes was followed by 2,754 encounters with terrestrial mammals (deer and coyotes on the runway, for example), 618 bats, and 137 reptiles, such as snakes dropped in flight by birds. About 10 percent of the strikes damaged the aircraft.

Arguably the best known birdstrike involved a plane. US Airways Captain Chesley “Sully” Sullenberger became a national hero when he safely landed his Airbus A320 in the Hudson River on January 15, 2009, after the plane collided with a flock of Canada geese on climb-out from New York’s LaGuardia Airport. Both engines lost power, but all 155 people onboard survived.

If a bird collides with an aircraft, chances are it will do so between July and October, when they are most active. And chances are it will be a gull, followed by a pigeon/dove, raptor, or waterfowl.

North America has experienced an explosion of the bird population during the past three decades as birds adapt to urban environments and airports. This increase includes 13 of the continent’s 14 bird species that average more than eight pounds, according to the FAA-USDA report.

Meanwhile, U.S. commercial air traffic has increased 42 percent from 17.8 million flights in 1980 to 25.2 million in 2011. This intersection of trends has resulted in more bird strikes, causing an estimated 586,170 hours of aircraft downtime and economic losses of \$718 million from 1990 through 2011 in the U.S. civil aviation industry, according to the report.

Most helicopters are not certified to resist bird strikes, but pilots can reduce the risk of a bird strike by following certain preventive measures:

- Increase altitude. 76 percent of bird strikes occur below 500 feet AGL and 97 percent occur below 3,500 feet AGL. Additionally, birds instinctively dive when threatened to gain airspeed and maneuverability.
- Avoid flights over bird prone areas, such as wildlife sanctuaries, landfills, and fish packing plants. If you must fly over bird prone areas, fly slowly until reaching a safe altitude.
- Wear protective eyewear with shatter resistant lenses when operating in areas of potential bird strikes.
- Keep landing/pulse lights on to get the birds’ attention.

Requirements for reporting a bird strike depend on the amount of damage, but the FAA requests that pilots report all bird strikes. While these incidents can be reported through normal channels with a local Flight Standards Office, the FAA strongly encourages pilots to report the strike to the website <http://wildlife.faa.gov>. The FAA needs this data to justify rules to make aircraft more resilient to bird strikes. We hope never to see another case of a bird flying through a helicopter’s windscreen.

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