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Bird Strikes

As the population of birds has increased in North America, so has the number of reported aircraft bird strikes. But in all of the data that is published, not much is said about how to handle one. Fortunately, a little preparation, common sense, and thoughtfulness can help you avoid a "fowled-up" flight.

The Numbers
Despite the rise in bird strike reports, many collisions still go unreported; one estimate claims 60% of bird strikes never find their way to the FAA database. If that total is to be believed, over 145,000 strikes have occurred since 1998.

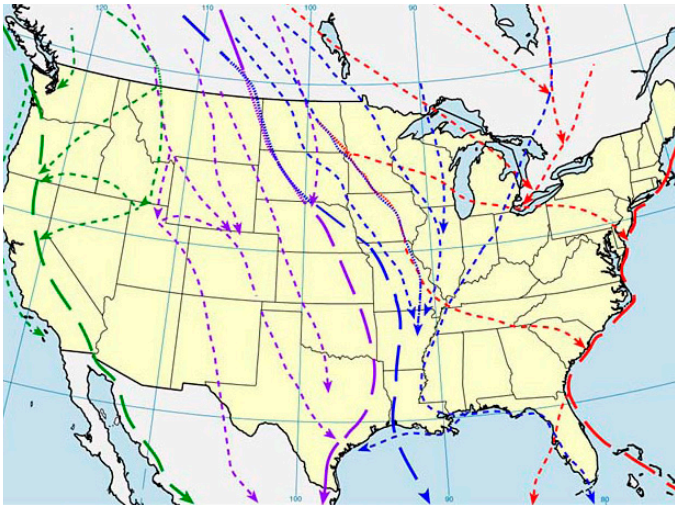
But let's face it: Numbers alone won't prepare you for the actual event. So what should you do when you're about to pick up an uninvited feathered passenger?

Unlike an engine failure or a stall, an aircraft-meets-bird event is not something that's easily practiced. But preparation for the possibility can help.

If a collision with a bird is imminent, protect your eyes while maintaining situational awareness. Assume that any impact will result in a shattered windshield. Excuse the pun, but duck below the glare shield. Prepare yourself for a lot of confusion, but above all else, fly the airplane! There will be a lot of wind and noise, and debris will probably be flying around. Wearing shatter-resistant sunglasses will help avoid eye injury and keep your vision from being impaired by the slipstream.

If the bird hits one of the airfoils, it's best to assume there's damage. Slow down to maneuvering speed and maintain control as best you can while you assess the situation. If the damage is significant, or you suspect it is, land as soon as practicable. Although you might be tempted to continue on to your destination, don't be lulled into a false sense of security. You may not be able to see the extent of the damage, and pushing the flight further than necessary may cost you dearly. Don't hesitate to declare an emergency, and don't rule out an off-airport landing if you believe that the airframe has suffered major damage.

Hello Birdie
On August 21, 1997, Southwest flight 1907 was descending through 4000 feet msl when the Boeing 737 struck a "large bird." The force of the impact shattered the windshield and drove glass into the cockpit and forward galley. The captain and first officer landed the aircraft safely, but both crewmembers spent time that afternoon in the hospital having glass fragments removed.



Upon landing, thoroughly inspect the airplane. If there's any damage, have a mechanic look things over. You may be able to fly it back to your home airport, but don't take any unnecessary chances.

Know Before You Go

Remember that whole 'ounce of prevention' axiom? Pay attention to available information prior to launch and en route; Notams may have been issued for bird activity.

If the destination field has an automated terminal information service (ATIS), give it a call before departing. If hazardous bird activity is high, the ATIS will report this. Or consider calling the FBO at your destination and asking them about birds on the field.

Geography may clue you in to potential bird activity. Birds tend to congregate in low-lying areas or marshlands where food is more abundant. Landfills are also a big attraction for birds. Take these areas into account when scanning the sectional to determine if an airport is a likely candidate for excessive bird traffic.

According to an FAA report on bird strikes, more collisions occur between July and October – prime migration time. Take extra care when flying during these months, especially near one of the major bird migration routes. These four routes divide the United States fairly equally from east to west. The Atlantic Flyway parallels the East Coast while the Mississippi Flyway follows the Mississippi River and includes areas near the Great Lakes. The eastern edge of the Rocky Mountains is home to the Central Flyway and the Pacific Flyway routes itself along the West Coast.

> On February 18, 2010, the pilot of a Cessna 208B lined up for final approach into Sacramento International Airport. About 300 feet agl, he felt something hit the airplane, and the aircraft rolled to the right. He recovered and managed to land, but upon inspecting the damage he found that some of the sheet metal had been ripped from the right wing, and saw puncture holes in the wing spar. The cause of the accident: a tundra swan that failed to yield the right of way to an aircraft on final approach.

It's also a good idea to limit flights over designated bird sanctuaries, and fly as high as practical. And tempting as it may be to make that low-level pass over the beach, remember that seagulls, pelicans and other waterfowl like to lay claim to that airspace.

Lastly, the AOPA online forums *(http://forums.aopa.org)* are a good place for AOPA members to chat with pilots from all over the country. These pilots are great sources of local knowledge.

If bird activity is high, should the flight be delayed? Probably not, but awareness is key; it's hard to prepare for an emergency situation you've never thought about.

Mitigate The Risks

If you notice significant bird activity on the field as you are taxiing, consider asking airport personnel to disperse them. Some airports have remotely triggered cannons that are controlled by tower personnel and used specifically to scare off birds.

Switching on the landing light while taxiing makes you more visible to birds and gives them more time to vacate the area. Waiting a few more minutes may not be economical, but the cost of the extra fuel burned may be minimal compared to the cost of an insurance claim or worse.

Leveling off for the en route portion of flight doesn't mean you're out of the woods. Bird strikes have been reported above 10,000 feet agl. Should you encoun-

ter a bird and a collision seems imminent, begin an immediate climb. Birds, when threatened, have a tendency to dive. But don't pull back so suddenly that you induce a stall.

Studies reveal that more strikes occur during the approach and landing phases of flight. Most general aviation airports are built in areas that allow for a large field of vision, and while that works to a pilot's advantage, it also appeals to birds that can see potential predators from greater distances than in other locations. Birds also find refuge on airport equipment – approach lights, for example.

Don't fly the approach any faster than necessary. Speed plays a larger role in the amount of damage from a bird strike than the mass of the bird does. While you may not be able to control the size of the bird approaching you, you can control how fast you hit it. Striking a 4-pound bird will inflict less damage at 80 knots than at 100 knots.

Finally, a go-around is always a good idea if the landing zone is unsafe. Don't assume that birds will get out of your way as you approach them.

On The Ground
The FAA does not require pilots to complete bird strike reports—but you should. It's fast, easy, and it may help other pilots in the future. If the strike happened near an airport, also be sure to also notify the

airport authority. They need to know this information to alert other pilots to the dangers. Reporting a bird strike can be done online at: *http://wildlife-mitigation.tc.faa.gov*

Keep in mind that some bird strikes may require a report to the NTSB. 49 CFR Part 830, or *"NTSB 830,"* states that an immediate report should be filed if a required crewmember is unable to perform their duties due to injury, or a flight control system fails or malfunctions, among other reasons.

References:
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