



Interagency Aviation Lessons Learned



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Subject: Aviation Life Support Equipment (ALSE)

Area of Focus: Helmet Visors

Distribution: All Aviation Operations

Discussion: What could be more enjoyable than a helicopter flight in the Gulf of Mexico on a beautiful sunny day? Scattered clouds, calm seas, then all of a sudden - WHAM! The helicopter is hit by a two-pound bird and within seconds, the aircraft is filled with bird remains. Here's the story:

A contracted pilot and aircraft was transporting two Inspectors to an off-shore platform. At approximately 60 miles off shore, the pilot noticed a bird in front of them and took evasive action, but the bird turned toward the aircraft and impacted the pilot's door post. The impact broke off an 18-inch piece of the windshield trim and bent the pilot door leading edge which created a gap large enough for the bird to enter the aircraft.

According to the pilot, the amount of bird splatter inside the aircraft was significant but most of the larger pieces of the bird continued past his right side, making impact with the lower aft portion of the pilot door window. The window broke, allowing the rest of the bird to exit the aircraft.

The pilot and Inspectors were wearing helmets with their visors down.¹

The pilot received the most splatter from the bird as it hit the frame of the pilot's door, entered the aircraft and exited through the lower door window. Had the pilot's visor been up, he could have sustained serious injury to his eyes and ultimately resulted in the total loss of control of the aircraft.



¹ IALSE Handbook (2.2C8 Eye protection) states that "Use of the visor is **recommended** during all helicopter and low level airplane operations."



The bird that struck the helicopter was believed to be a Herring gull. The average weight of a Herring gull is two pounds. With the helicopter travelling at 135 knots, the bird strike kinetic energy was approximately 1,619 foot pounds, the same impact energy produced by a .22-250 Remington round. It's evident from the photos of the damaged aircraft, that the bird hit the helicopter with the equivalent impact energy of a .22-250 Remington round.

From their location, the pilot could see an oil platform that he knew was manned and had a large heliport. Once stabilized and heading toward the platform, he contacted the company operations department to notify them of the situation and their divert.



Approximately 13 minutes later, the flight landed safely on the platform. A mechanic was brought out to assess, repair, and prepare the helicopter for a ferry flight. After obtaining all of the appropriate approvals, the pilot flew the aircraft to a land-based airport under a ferry permit from the FAA. The Inspectors returned to their base in a different aircraft.

Kudos to the pilot for his professionalism, proper utilization of ALSE, and piloting skills. His actions saved 3 lives that day. Had he not immediately taken evasive action or not been using his visor, the results could have been tragic.

**Helmets should always be worn with the visor down.
ALSE when used correctly, can save your life and others.**

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