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Interagency Aviation

ACCIDENT PREVENTION BULLETIN

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Subject: The Helmet Saved the Day

Area of Concern: Use of flight helmets

Distribution: All Aviation Activities

Discussion: Thinking about a waiver to the flight helmet requirement? After reading this, you may want to reconsider. This Accident Prevention Bulletin highlights just one of the reasons.

Returning from an offshore inspection, the New Orleans District twin helicopter (Agusta A-109) encountered a bird strike. Fortunately, the aircraft was over land and only 8 miles from the New Orleans (MSY) airport. The bird entered through the passenger's side of the windshield where a Minerals Management Service (MMS) inspector was sitting. Part of the bird exited through the overhead skylight and struck the vertical fin. The bird inflicted damage to the windshield, windshield frame, skylight, vertical fin and…the inspector!

The inspector was struck in the face and head and resulting in minor facial lacerations and trauma to his cheek. He was treated at an emergency room and released. ***Without question, the helmet and visor saved him from more serious injury.***

Over 9,000 bird and other wildlife strikes were reported for USA civil aircraft in 2009. For any given impact, the most critical factor resulting in damage is the speed of impact. This is primarily due to the kinetic energy at impact which is absorbed by the airframe, engine or in some cases…the individual. While other factors influence damage potential, it basically comes down to a physics equation for kinetic energy: Energy is proportional to mass times velocity squared. The velocity of the aircraft amplifies the impact of a bird with enough force to cause significant damage. For example, a 12-pound Canadian goose struck by an aircraft traveling 150 miles per hour generates the force of a 1,000-pound weight dropped from a height of 10 feet. (Bird Strike USA).

We commend the MMS for their adherence to the potentially lifesaving policy discipline involving helmet-visor requirements. The outcome of this mishap could have been tragic had this requirement been waived or disregarded.

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