

Pilot error declines as factor in airline mishaps

December 28 2007

The number of airline mishaps attributed to pilot error significantly declined between 1983 and 2002, according to an analysis conducted by researchers at the Johns Hopkins Bloomberg School of Public Health. While the overall rate of airline mishaps remained stable during that time, the proportion of mishaps involving pilot error decreased 40 percent.

The rate of mishaps related to a pilot's poor decision-making declined 71 percent. The researchers attribute the decline to better training and improvements in technology that aid pilot decision-making. The findings are published in the January 2007 edition of *Aviation, Space, and Environmental Medicine*.

“A 40 percent decline in pilot error-related mishaps is very impressive. Pilot error has long been considered the most prominent contributor to aviation crashes,” said the study's lead author, Susan P. Baker, MPH, a professor with the Johns Hopkins Center for Injury Research and Policy and the Bloomberg School's Department of Health Policy and Management.

The study examined 558 airline mishaps between 1983 and 2002. Baker and her colleagues also looked at the circumstances of pilot error, which they characterized as carelessness on the part of the pilot and crew, flawed decision-making, mishandling of the aircraft or poor crew interaction.

Other key findings of the study included:

- Mishaps related to bad weather—the most common decision-making error—dropped 76 percent.
- Mishaps caused by mishandling wind or runway conditions declined 78 percent.
- Mishaps caused by poor crew interaction declined 68 percent.
- Pilot error was most common during taxiing, takeoff, final approach and landing of the aircraft.
- The mishap rate increased the most when aircraft were being pushed back from the gate or standing still, but pilot error was least common in such mishaps.
- Mishaps during takeoff declined 70 percent.

While the overall rate of pilot error mishaps declined, the reductions were offset by increases in mishaps that did not involve error by pilots; some involved errors by air traffic control or ground crews. The researchers also noted that there is a need to improve safety during the times when the aircraft is motionless on the ground or being pushed back from the gate. The study found that mishaps during these times more than doubled from a rate of 2.5 to 6 mishaps per 10 million flights.

“Trends indicate that great progress has been made to improve the decision-making of pilots and coordination between the aircraft’s crew members. However, the improvements have not led to an overall decline in mishaps. The increase in mishaps while aircraft are not moving may require special attention,” said Baker.

Source: Johns Hopkins University

Citation: Pilot error declines as factor in airline mishaps (2007, December 28) retrieved 27 April

2024 from <https://phys.org/news/2007-12-error-declines-factor-airline-mishaps.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.