

Safe Flights in Alaska

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The pilot has delivered the passengers and mail, and he's already thinking of what he'll do when he gets home tonight. He's made the trip many times. He calls the airport where he'll be landing, and the weather is good, just like the airport he's at now. There's no information on the weather near the mountain pass. The trip takes a few hours, and while he's heading toward the pass, some clouds move in. His easy trip under visual flight rules has now become more difficult. Soon he can't see much at all, and by the time he's deep in the mountain pass with steep hills on either side, he can't tell where the clouds end and the mountain begins.

This story is fictional, but it used to be a common Alaskan scenario that resulted in fatal aviation accidents. Between 1990 and 1999, 52 commercial pilots flew a working plane into either the ground or a mountainside in Alaska. Controlled flight into terrain (CFIT) is the aviation terminology for the seemingly impossible act of flying an airworthy aircraft into the ground. It is the leading cause of fatal commercial aviation accidents worldwide including 25 percent of all fatal airline accidents and 38 percent of international airline fatalities (3,631 lives lost from 1987 through 2004).

In the 1990s several federal agencies came together, with financial support from Congress, to address the high rate of aviation accidents in Alaska. The National Institute for Occupational Safety and Health (NIOSH), using the public health approach, focused on addressing the most deadly problems first, including CFIT. Previous research by NIOSH staff led to the recommendation of increased availability of local weather information and specialized weather training for pilots to decrease the number of these crashes.

Today, a pilot flying between two remote airports in Alaska has more information available about the weather than ever before. NOAA's National Weather Service has placed online weather cameras across Alaska, including several mountain passes (<http://akweathercams.faa.gov>). The Federal Aviation Administration's Capstone program (www.alaska.faa.gov/capstone/) is introducing avionics based on global positioning systems for small commercial aircraft. These systems allow pilots to receive updated weather information, as well as the location of other Capstone-equipped aircraft. An Alaskan nonprofit organization, the Medallion Foundation (www.medallionfoundation.org), has worked to create a culture of safety in the industry and, in the process, has made safety profitable. The foundation has a Five Star program for companies: each star represents a higher level of safety. The goal is to increase safety, and decrease insurance costs for companies operating in the state. As of this fall, the State of Alaska will contract only with companies that have at least one star completed.

The collaborative approach of federal agencies, in concert with local nonprofit organizations, has had a tangible effect. Since 2000, not only has the average number of fatal occupational crashes per year decreased but also the percentage of fatal occupational accidents due to CFIT has declined by 13 percent. In 2005, there were no occupational pilot fatalities in Alaska.

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