The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating every civil aviation accident the United States and significant accidents in other modes of transportation – railroad, highway, marine and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the Federal Government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.
Improve General Aviation Safety

What is the issue?

While commercial aviation continues to have a strong safety record of 2 years without a fatal accident, the NTSB continues to investigate about 1,500 accidents each year in general aviation. In many cases, pilots did not have the adequate knowledge, skills, or recurrent training to fly safely, particularly in questionable weather conditions. In addition, the more sophisticated “glass” cockpit displays present a new layer of complications for general aviation pilots. And not only are pilots dying due to human error and inadequate training, but also they are frequently transporting their families who suffer the same tragic fate.

What can be done...

In our general aviation accident investigations, the NTSB sees similar accident circumstances time after time. Adequate education and training and screening for risky behavior are critical to improving general aviation safety. For example, guidance materials should include information on the use of Internet, satellite, and other data sources for obtaining weather information. Training materials should include elements on electronic primary flight displays, and pilots should have access to flight simulators that provide equipment-specific electronic avionics displays. Knowledge tests and flight reviews should test for awareness of weather, use of instruments, and use of “glass” cockpits. And there should be a mechanism for identifying at-risk pilots and addressing risks so that both the pilot and passengers can safely fly.

Human error in general aviation accidents is not solely a pilot problem. Aircraft maintenance workers should also be required to undergo recurrent training to keep them up to date with the best practices for inspecting and maintaining electrical systems, circuit breakers, and aged wiring.

Statistics

General aviation has the highest aviation accident rate within civil aviation. The rate is 6 times higher than for small commuter operators and 40 times higher than for transport category operations. Although the overall general aviation accident rate has remained relatively steady at an average of 6.8 per 100,000 flight hours, the components of that figure have changed dramatically over the last 10 years. In particular, personal flying accident rates have increased 20 percent, while the fatal accident rate has increased 25 percent over the same 10-year period. The NTSB sees this statistic play out frequently, having investigated an average of 1,500 general aviation accidents each year, in which more than 400 pilots and passengers are killed annually.

Related Reports

Safety Recommendation Letter October 12, 2005
NTSB Report Number: AAR-09-01, adopted on 01/28/2009 [Summary] [PDF Document]
Safety Study: Introduction of Glass Cockpit Avionics into Light Aircraft
NTSB Report Number: SS-10/01, adopted on 3/9/2010 [Summary] [PDF Document]

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