

Fatal Balloon Accident Highlights Disagreement Between Safety Agencies

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On July 30, 2016, a hot-air balloon tour flight crashed about 30 miles south of Austin, TX, killing the pilot and all 15 passengers on board. It was the deadliest balloon crash in U.S. history, and exposed a disagreement among U.S. safety agencies: the National Transportation Safety Board (NTSB) has urged tougher federal regulation of balloon flights, but the Federal Aviation Administration (FAA) has rejected the NTSB's recommendation.

How Safe Are Balloons?

While balloon crashes are uncommon, accidents involving balloon tours can involve large numbers of passengers: a 2013 crash in Egypt killed 19 of the 21 persons on board; a 2012 crash in New Zealand killed all 11 occupants; and a 1989 crash in Australia resulted in 13 deaths. Prior to the July 2016 crash in Texas, the deadliest crash in the United States had occurred near Woody Creek, CO, in August 1993. In that accident, six were killed when a commercial sightseeing balloon collided with a power line, severing the basket from the balloon.

Ballooning has inherent risks. Balloons are slower and less maneuverable than powered aircraft. They are consequently vulnerable to deteriorating weather conditions and obstacles. They operate from and to nondedicated departure and landing sites, and they lack specific safety features to protect occupants in the event of a crash. Obstacles, particularly power lines and antenna towers, pose unique hazards to balloons.

Reliable statistics comparing the relative safety of commercial balloon tours to other aviation activities are lacking because there are no formal requirements to record or track balloon flights. CRS analysis of the NTSB [aviation accident database](#) identified 45 fatal hot-air balloon accidents in the United States between 1982 and 2015. More than half involved collisions with power lines. The other main causes of fatalities were on-board fires, falls from balloons, and crew becoming entangled in mooring lines. The CRS findings are in line with a [1998 study](#) that determined that power-line contact was the most significant predictor of accident fatality among balloon crashes occurring in the United States between 1964 and 1995.

[A 2013 study](#) of risks to balloon occupants examined both fatal and nonfatal crashes in the United States between 2000 and 2011. It found that roughly half of these accidents occurred on paid hot-air balloon tours, and concluded that the

proportion of balloon crashes attributed to paid rides has increased over time, perhaps reflecting the growing popularity of such tours. Drawing parallels to helicopter and fixed-wing commercial air tours, the researchers cautioned that "the inverse relationship between crash rates and oversight raises concerns about the public health impact of less-regulated commercial air tour operations, such as paid hot air balloon rides."

Commercial Balloon Tours Face Limited Oversight

Unlike airplane and helicopter commercial air tours, paid balloon rides are not regulated under FAA [national air tour safety standards](#) that were promulgated in 2007. Those regulations require certain for-profit air tours to comply with the same safety standards as commuter airlines. [Operators of local, nonstop aircraft and helicopter tours that keep within 25 miles of their base](#), however, are subject to minimal regulation and oversight. They must implement drug and alcohol testing programs for pilots, and must obtain authorization to operate their businesses from [FAA district offices](#) that track compliance.

While commercial balloon companies are not certified or authorized by FAA, pilots must have a [commercial balloon rating](#) to take paying passengers aloft. To obtain the rating, pilots must log 35 total flight hours, of which 20 must be in balloons, and pass a knowledge test. In comparison, commercial airplane pilots must have at least 250 hours of flight experience.

Commercial balloon pilots are not required to obtain FAA medical certification, which requires applicants to disclose existing medical conditions as well as any arrests, convictions, or administrative actions related to driving while intoxicated, impaired, or under the influence of drugs or alcohol. Balloon pilots are required to [notify FAA in writing within 60 days of any drug or alcohol-related driving offenses](#), and such offenses can result in FAA suspending or revoking a pilot's certification. However, FAA has limited capabilities to monitor compliance with reporting requirements.

In April 2014, following investigations of three nonfatal commercial balloon accidents, the [NTSB issued safety recommendations](#) urging FAA to regulate and oversee balloon tours in the same way as local airplane and helicopter air tours. It asserted that requiring commercial balloon operators to obtain an authorization from an FAA district office would be a beneficial first step toward increasing FAA oversight, enabling FAA inspectors to include these operators in their routine surveillance activities.

[FAA responded](#) that, in its opinion, such action was unnecessary because doing so "would not result in a significantly higher level of operational safety," noting that the intent of the applicable regulation is to require air tour operators to implement drug and alcohol testing programs, not to increase FAA safety checks. FAA concluded that there was no compelling evidence that the use of drugs or unapproved medications has contributed to balloon accidents. FAA pointed out that it already performs certain oversight activities of balloons and balloon pilots, particularly at ballooning events. It concluded that "[s]ince the amount of ballooning is so low, the FAA believes the risk posed to all pilots and participants is also low given that ballooners understand the risks and general hazards associated with this activity." The NTSB considered this an unacceptable response, and FAA's position has come under considerable scrutiny following the Texas crash.

The structure of the balloon tour industry may pose a particular challenge to tighter FAA regulation, though. The industry consists of many extremely small and geographically dispersed businesses that, unlike powered aircraft operators, often do not have a fixed base at an airport. In some geographic regions these companies operate as seasonal businesses, and most have very few full-time staff, creating potential regulatory burdens for both business operators and FAA inspectors.