

Reno Air Crash: P-51

NTSB Releases Findings On 2011 Reno Air Race Crash.

The [CBS Evening News](#) (8/27, story 11, 0:30, Pelley) (8/27, story 11, 0:30, Pelley) reported, "The NTSB today blamed a pilot for a deadly air crash at an air race last year in Reno, Nevada." The NTSB said the pilot "made modifications to the P-51 mustang that made it weaker and caused the tail structure to fail."

Typical of local television coverage, [WKTV-TV](#) Utica, NY (8/27, 11:09 p.m. EDT) reports, "A vintage plane pushed beyond its limits, that's the probable cause of last year's air crash in Reno, Nevada." NTSB Chairman Deborah Hersman was shown saying, "What we found is that the owner of the aircraft did not disclose many of the modifications that had been done to this aircraft to the FAA nor where they adequately evaluated or flight tested."

The [AP](#) (8/28, Ritter, Sonner) reports the NTSB's Robert Sumwalt said at the hearing Monday, "If you want to go out and fly fast and try to win, that's one thing...If you're modifying an aircraft without fully understanding how the modifications can affect the aerodynamics, you're playing Russian roulette." Meanwhile, NTSB investigator Clinton Crookshanks said "cutting several feet off the aircraft wingspan and other modifications reduced weight and wind resistance."

MSNBC

A highly modified vintage aircraft was pushed beyond its structural limits before it crashed into spectators at last year's National Championship Air Races in Reno, according to the findings being presented to the National Transportation Safety Board on Monday in Washington.

Loose screws on a crucial tail assembly are also blamed in the September 2011 crash that killed 74-year-old pilot Jimmy Leeward and 10 people on the ground and injured more than 70.

This year's Reno Air Races start Sept. 12.

The five-member NTSB has already issued several preliminary reports and recommendations for the Federal Aviation Administration and race organizers to improve safety.

NTSB officials said Leeward's World War II-era P-51 Mustang fighter reached 530 mph before it pitched skyward and then slammed nose-first into rows of box seats.

The five-member panel is not expected to call for restrictions on the event.

Leeward, a former stunt pilot and Reno Air Races veteran who lived in Ocala, Fla., named his vintage aircraft the Galloping Ghost.

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NTSB officials say he reached 530 mph during a qualifying race before the aircraft pitched skyward, rolled upside down and slammed nose-first into the tarmac amid rows of box seats. Debris and body parts were scattered for more than an acre.

Photos showed a tail stabilizer falling from the plane during the steep climb.

NTSB Chairman Deborah Hersman said in April the climb exerted sudden high gravitational forces that appeared to have incapacitated Leeward as blood rushed from his brain. Instruments aboard the aircraft showed the acceleration topped nine times the force of gravity — well above a 5G threshold at which people begin to experience loss of consciousness.

In addition to loose screws, a preliminary NTSB report on Tuesday focused on the possibility that a sudden gust of wind or turbulence from a nearby plane buffeted Leeward's aircraft just before the crash. The report said a definitive conclusion wasn't possible.

Leeward's age and physical condition weren't considered significant factors in the crash.

Alcohol detected in Leeward's remains by the Washoe County medical examiner's office was attributed to aviation fuel contamination, and NTSB investigators noted that spectators' alcoholic beverages were scattered around the crash crater.

The air race championship, entering its 49th year, is the only event of its kind in the world. It draws thousands every year to Reno Stead Airport, where it features aircraft flying at speeds of over 500 mph sometimes wingtip-to-wingtip around an oval pylon track.

The crash spawned civil liability lawsuits against the pilot's family and mechanics and the host organization.

Some critics called for ending the event, but organizers pressed forward with plans for this year's races amid promises that most NTSB safety recommendations would be implemented.

The National Air-racing Group Inc. and the Reno Air Racing Association Inc. balked at requiring pilots to wear flight suits designed to mitigate high gravitational forces. They said the expensive suits might prove too bulky for cramped cockpits and too hot during competition.

Insurance premiums jumped from \$300,000 last year to \$2 million this year, but the Nevada state tourism commission last month approved a \$600,000 sponsorship to help the Reno Air Racing Association Inc. meet a Sept. 1 deadline for its final insurance payment.

AP

NTSB blames pilot, modifications for Reno air race crash

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RENO, Nev. (AP) — The World War II-era P-51 Mustang hurtled over the race course in Nevada at more than 500 mph, its skin wrinkling and canopy separating from the sheer force of the flight. A crucial tail control fluttered, its screws loosening.

At the stick was 74-year-old pilot Jimmy Leeward who had listed his age as 59 on a race entry form and made changes to his plane to make it fly faster than it ever had before. It did for several seconds before taking a deadly plunge into spectators.

Nearly a year later, and just weeks before organizers stage the race again on Sept. 12, federal investigators on Monday blamed Leeward and his aircraft modifications for the crash.

National Transportation Safety Board member Robert Sumwalt, speaking at a board hearing in Washington, compared Leeward's decisions to putting a loaded gun to a person's head.

"If you want to go out and fly fast and try to win, that's one thing," he said. "If you're modifying an aircraft without fully understanding how the modifications can affect the aerodynamics, you're playing Russian roulette."

Along with Leeward, 10 people on the ground were killed, including a Fort Mohave couple, and more than 70 were hurt in the September 2011 crash.

Efforts to reach Leeward's family through their business office in Ocala, Fla., weren't immediately successful.

According to the NTSB final report, in addition to cutting 15 years from his own age, Leeward failed to report to the Federal Aviation Administration all the modifications that had been made to his 65-year-old aircraft. He also didn't provide documentation showing they had been tested.

NTSB investigator Clinton Crookshanks said cutting several feet off the aircraft wingspan and other modifications reduced weight and wind resistance. They also weakened the frame and made the aircraft more unstable.

Crookshanks said the aircraft's high speed and loose screws led to "flutter" and vibration on the crucial tail control that made the plane unstable as it rounded a pylon toward the main grandstand.

As the plane pitched vertically, Leeward had perhaps one second to respond. Investigators said he was probably rendered unconscious by gravitational forces reaching 17 times normal — and far exceeding the levels of human tolerance.

People can begin to experience loss of consciousness at 5G. A photo showed Leeward slumped forward in the cockpit.

NTSB Chairwoman Deborah Hersman blamed the pilot for "operating at the edge of the envelope" without fully reporting and testing modifications to his plane, dubbed the Galloping Ghost.

She said the five-member panel was satisfied that federal aviation officials and race organizers had

implemented several preliminary recommendations to improve pilot and spectator safety.

“Innocent bystanders should never have to rely on faith for their safety,” said Hersman, noting that the board is an independent investigative and recommendation body, not a regulator.

The FAA said in a statement Monday that agency officials already were working to address NTSB recommendations with less than three weeks to go before the 49th annual Reno Air Races.

The Reno Air Racing Association Inc. and the National Air-racing Group Inc. balked at requiring pilots to wear flight suits designed to mitigate high gravitational forces.

They said the expensive suits might prove too bulky for cramped cockpits and too hot during competition, and noted that the forces Leeward experienced weren't normal.

But organizers redesigned the course to add 150 feet of buffer — pushing the distance between racing planes and the permanent grandstand at Reno Stead Airport to at least 1,000 feet.

Racing association chief executive Mike Houghton said race officials decided to make that change while the FAA addresses discrepancies in its regulations regarding whether a 500-foot or 1,000-foot buffer is appropriate.

Pilots this year will undergo new training, and a new tracking procedure aims to ensure that problems cited during aircraft inspections are addressed before aircraft take to the skies.

Houghton and several air racing fans said Monday they were relieved the board didn't issue new recommendations or call for an end to the only race of its kind in the world.

“There is an element of risk to racing, whether it is in an automobile or a boat or whatever,” Houghton said. “That is part of the thrill that draws the crowd — the ultimate risk and the danger.”

Nineteen pilots died in accidents before last year's crash.

Hersman noted that the crash was the first involving spectators. It has also spawned civil liability lawsuits against the pilot's family and mechanics and the host organization.

Valerie Linse, who suffered a wrist injury when she was struck by flying crash debris last year, said her plans to go this year were sidetracked by family obligations. She said her injury required several months of therapy.

“I wish I could be there this year. I'd like to see what things they're doing differently,” said Linse, a nurse at a Las Vegas veterans hospital near Nellis Air Force Base. “I like the races. I like all of it. She added: “How often does a crash actually happen?”