

## PSYCHEDELIC AIRCRAFT MIGHT FRIGHTEN BIRDS AWAY

In an article last month there was a suggestion that a pilot should “Fly with lights on or possibly paint the aircraft to look like a condor!” Many thought the last suggestion was somewhat ridiculous. But wait: Researchers with the USDA (United States Department of Agriculture) found that Canada geese react most quickly to an aircraft with alternating pulsating lights. The researchers recommend purple/ultraviolet lights, which would be seen by the geese but not people. Aircraft in the future may have pulsing purple or ultraviolet lights on them to alarm birds in the plane's flight path. Most bird strike prevention techniques attempt to keep birds away from airports, but these lights would help keep airborne planes safe. You might want to wait until there is more research before painting your plane to look like a 1960's psychedelic poster when you turn the black lights (UV) on). But this is not a new idea! The photo above shows a Continental airliner painted by Peter Max. If you click the photo, you will see a series of aircraft painted other than the ordinary drab blue, red, green, or white.

(Information adapted from EAA e-Hotline August 17, 2012)



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## SAVE THOSE MATTRESSES!

Last month club member Jim McBurney was using old mattresses to cushion and protect parts of his Zenith CH-801 which he was packing into a crate. That's not the only use for mattresses seen at the side of the road. A medical helicopter broke a skid in flight when it hit a cellphone tower the beginning of August, but the crew landed safely at San Antonio International Airport after firefighters built a pile of mattresses to take the place of the missing skid. The Bell 407 helicopter, with three crew and a patient on board, was headed for the San Antonio Military Medical Center about 3:30 a.m. when the accident occurred. "[The pilot] knew if he landed, that he would crash," firefighter Kevin Campbell told the San Antonio Express-News. "He suggested mattresses, and I told Engine 23 to grab three or four mattresses from the dorm." They also brought 45-pound weights from the firehouse gym to hold the mattresses down. Campbell said the helicopter crew hovered for a short time before attempting the landing. "It was tense for a little bit," he said. But the helicopter landed safely, and nobody was hurt. "It worked great," Campbell said. (Information adapted from the San Antonio Express-News and AvwebFLASH 08/09/12)



## AVIATION QUESTION OF THE MONTH

**Answer to last month's question:** *What is the minimum time (in flight hours) in which a person can become an airplane CFI? Does the CFI require a commercial and/or instrument rating? My understanding is that the FAA does not regard flight instruction as commercial flying even though money typically changes hands.*

**According to AOPA (and the FAA):** Under Part 61 and Part 141, the regulations state that commercial and instrument ratings are prerequisites to obtain a flight instructor rating. The minimum amount of flight time required to obtain a CFI certificate would occur under Part 141, which would be 215 hours of flight time. However under Part 61, the individual would need at least 250 hours of flight time. The FAA treats compensation to a flight instructor as the individual receiving payment for training rather than flying the aircraft. This allows the instructor to hold a third class medical and still receive compensation. So, there is still money changing hands, but not for providing pilot services.

**This Month's Question:** A pilot buckled his aircraft's nose wheel gear when landing. This caused the aircraft's propeller to strike the ground resulting in a damaged engine. There were no injuries to people. Is this a reportable aircraft accident or is it just an "incident" that does not have to be reported?

## COST LIMITS FLYING

Within the last couple months AOPA and other flying organizations indicated that poor flight instructors and other factors not associated with money were the prime causes of fewer new pilots and less flying activity by current pilots. However, many pilots disagreed and indicated in Blogs that the various flying groups were ignoring the obvious truth: aviation activities, including flight instruction, just cost more money. Now a university researcher has determined this to be a fact.



An MIT (Massachusetts Institute of Technology) student's graduate school thesis, which relied in part on information gathered from AVweb readers, confirms that cost is a major factor in the decline of general aviation activity. It has also revealed something that hasn't shown up in other studies but may be related to economics. In her research, Kamala Shetty, who wrote the thesis as part of her quest for a Masters of Science in Aeronautics and Astronautics at MIT's International Center for Air Transportation, found that people feel they don't have the time to fly. "An interesting result of the survey that was not clearly evident in the data indicated that available free time has also been a major factor in affecting activity levels," Shetty wrote in the thesis. AVweb (the Aviation Web organization) facilitated the study, which was done under the supervision of Prof. R. John Hansman, by inviting readers to take part in a survey of flight activity and related issues. More than 1,250 AVweb subscribers took part.

The survey also asked AVweb readers to predict the general aviation future and their responses hit some familiar themes. "In the responses of the surveyed pilots, increasing costs, increased regulation, lack of public understanding of the role of general aviation, and the declining pilot population stand out as the biggest challenges that general aviation faces," the thesis concludes. Readers also said they'd like less cumbersome regulations, better availability of rental aircraft and lower costs. Fuel costs, in particular, figured as a major factor affecting flight activity and almost 80 percent of pilots said they'd quit flying if fuel prices hit \$8 a gallon, which is less than the price of avgas in many countries with active general aviation.

Click here to download the report as a [PDF](#).

(Information adapted from Avweb and ICAT\_Kamala Shetty Report)

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## NTSB: DETERIORATED PARTS CAUSED RENO CRASH

Last year's fatal crash of a P-51 racing aircraft at Reno was caused by compromised stiffness in the elevator trim-tab system, which led to flutter and loss of elevator pitch control at race speed, said the National Transportation Safety Board in its



probable-cause hearing on August 27, 2012. At last year's race, veteran air racer Jimmy Leeward lost control of his Galloping Ghost P-51 after the home pylon turn, causing a sharp pitch up followed by a dive into a spectator area, killing him and 10 others. The NTSB's investigation revealed that the aircraft was flying faster than it ever had by some 35 knots, with higher engine power settings than previously used. On September 16, 2011, as the experimental single-seat P-51D airplane "The Galloping Ghost," traveling about 445 knots, or 512 mph, in the third lap of the six-lap race, passed pylon 8, it experienced a left-roll upset and high-G pitch up. During the upset sequence, the airplane's vertical acceleration peaked at 17.3 G, causing incapacitation of the pilot. Seconds later, a section of the left elevator trim tab separated in flight. The airplane descended and impacted the ramp in the spectator box seating area, killing the pilot and 10 spectators and injuring more than 60 others. The board also found



that there was evidence of ongoing structural failure during the race, including a cracked canopy. Further, Leeward and his crew had made major modifications to the aircraft, including the removal of the P-51's iconic belly air scoop, that compromised the structural integrity of the fuselage. The crew notified the FAA of only one of these changes, a boil-off system used to improve oil cooling. The NTSB probe found that screws used to attach one of two trim tabs to the elevator were old or loose, possibly having last been replaced in 1986. This allowed the trim tab to flutter, failing the tab control rod and resulting in an instantaneous pitch-up moment that generated a calculated 17 Gs, which the board determined was beyond human endurance. In a video posted on AVweb, the trim tab can clearly be seen departing the elevator, but by that point, the control rod had already failed and Leeward had no trim control. VIDEO: [NTSB Analysis of the Crash](#) NTSB [Probable Cause Report Transcript](#) (Information adapted from Avweb 08/27/12, AVwebBIZ, AOPA ePilot, Flying Magazine, and the NTSB)

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