



ACCIDENT REVIEW

Avoiding Loss of Control

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National Transportation Safety Board
PRELIMINARY REPORT

Occurrence Type: Fatal

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

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On Dec. 30, 2010, at 0958 Central Standard Time, a Piper PA-46-310P, N9103N, collided with the terrain in Milaca, Minn., after the pilot reported that he had lost the autopilot and was trying to recover from an unusual attitude. The private pilot, the sole passenger, and a dog on board were fatally injured. The airplane was substantially dam-

aged. The 14 Code of Federal Regulations Part 91 personal flight was operating in instrument meteorological conditions. The pilot had filed and activated an instrument-flight-rules flight plan. The flight departed from the Aitkin Municipal Airport (AIT), Aitkin, Minn., about 0930, en route to Beaumont, Texas. The pilot was cleared to

climb to 17,000 feet. Shortly thereafter, the pilot reported to the controller that he had lost the autopilot and that he was trying to recover from an unusual attitude. There were no eyewitnesses to the accident. Ear-witnesses reported hearing the airplane engine sounds varying. One witness, who holds a pilot certificate, stated he heard the airplane engine "winding up which I assumed (meant) it was in a spiral." He stated that he heard the airplane for three to five minutes during which time the engine sounds varied as did the direction of travel of the airplane. The sound of the engine revved and stopped so he went out looking for the airplane. He located the airplane in a field approximately a mile from his location.

Updated on Jan. 10, 2011, at 2:20 p.m.

No one wants to consider the possibility of a loss-of-control accident but the odds are that this will happen more often than an engine stoppage or just about any other accident causal factor. How do we manage this risk?

First, get some primary upset training from a qualified aerobatic instructor. The training should realistically simulate loss of control. I recommend Rich "Boss" Perkins of Attitude Aviation (925.456.2276) at Livermore Municipal Airport, Calif., (KLVK) because practice makes permanent, and he is, in my opinion, the best. I recommend you receive this training every two years.

Second, learn your aircraft instruments in terms of which system is driving which instrument. Use breaker caps and placards to keep it straight in the heat of battle. Ask your flight trainer to provide you with systems failure scenarios that accurately mimic these conditions. Know when and why your autopilot will disengage un-commanded and practice getting back on the autopilot.

Third, know the pitch-power configuration for V_a (maneuvering speed) in your aircraft. Consider 20 inches manifold pressure or 500 pounds torque (piston PA46 or turbine P46T) for clean configuration and level flight as a starting point.

According to the AOPA Nall Report, loss of control is still responsible for the vast majority (about 75 percent) of General Aviation accidents. FAA Safety Team (FAASTeam) Manager Eric Minnis reports, and it should come as no surprise, that fatal accidents rise with restrictions to visibility; that is, less than 15 percent of VFR accidents are fatal. If the accident happens at night, the rate doubles to 30 percent. Throw in instrument conditions, and fatalities will occur 60 percent of the time. He goes on to say that it is a simple matter of physics, but that it would be unrealistic to stop flying all together. Instead, we need to learn to identify and manage these risks. I agree with this notion, and it puts us smack-dab in the middle of the currency vs. proficiency debate.

FAASTeam Manager Fred Kaiser suggests operating to the highest professional standard, the same way every time.

He goes on to admonish us to not let any outside influences interfere with this concept. I believe this to be an easy problem to love, but a hard one to manage because of its complexity. One time-honored method is to look around and see how other groups with similar challenges have managed.

In 2009, Cape Air flew 65,000 accident-free single-pilot hours in complex aircraft on "all weather" short-haul routes. According to Training Director Mike Gorassi, they accomplished this by careful and consistent use of advanced training techniques such as pre-training assessment, use of cockpit procedures training, training in the aircraft one-on-one with an experienced instructor, using checklists, flows, memory items and strict adherence to well-vetted standard operating procedures.

MMOPA can and should encourage a higher level of

proficiency and improved aeronautical decision-making through the implementation of standard operating procedures and standardized training. It is working for the Mitsubishi MU2 community through the SFAR (Special FAR) program and for Cirrus with their certified Cirrus Instructor Pilot program. AOPA will be providing its own incentive to the flight-training community very soon. In fact, the program will most likely have been formally announced by the time you read this article.

If we were to make use of key elements of these successful models, PA46 single-pilot operator training should be provided twice per year at a minimum and should be focused on three key areas:


1. Knowledge: As a full-time PA46 flight instructor, I observe that the PA46 pilot community has significant gaps in

operational knowledge, which can lay dormant and uncorrected and could potentially lead to an aviation accident.

2. Skills: Skills are perishable and need to be constantly and precisely iterated on a regular basis. PA46 pilots should train twice per year with an experienced PA46 specific flight instructor using well-vetted checklists, flows and memory items.

3. Procedure: PA46 pilots should develop the discipline to fly procedurally. PA46 pilots should have and use well-vetted standard operating procedures (SOP). They should receive effective scenario-based training emphasizing SOP, checklists, flows and memory items.

My goal is to reduce the number and severity of PA46 accidents by encouraging a shift

to the pilot-training paradigm that closely mirrors other successful programs. I encourage each single-pilot operator to make a commitment to train to a higher standard and to have and use a standard operating procedure. Each pilot should seek tactical, practical training that will improve competence and confidence. Please join me. I welcome your comments and suggestions. 

Fly Safely - Train Often
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About the Author: A former corporate pilot and primary instructor, Rochfort is a full-time Master Instructor providing insurance industry and FAA-approved initial and recurrent training, pre-purchase consultation,



relocation and expert witness services to the PA46 (Matrix, Malibu, Mirage and Meridian) community worldwide