

Accident Review 2014 Winter

Dawsonville, Ga. - BY DICK ROCHFORT

NTSB Identification: ERA14FA058 14 CFR Part 91: General Aviation Accident occurred Monday, Dec. 02, 2013, in Dawsonville, Ga. Aircraft: PIPER PA 46-310P, registration: N87NF Injuries: 1 Fatal.

This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed. NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work, without any travel, and used data obtained from various sources to prepare this aircraft accident report.

On Aug. 25, about 1415 Eastern On Dec. 2, 2013, about 1915 EST, a Piper PA-46-310P, N87NF, was destroyed following an inflight break up and impact with terrain in a heavily wooded area near Dawsonville, Ga. Night instrument meteorological conditions prevailed and an instrument meteorological flight plan had been filed for the flight. The private pilot was fatally injured. The personal flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91. The flight departed Morristown Municipal Airport (MMU), Morristown, N.J., around 1635 with the intended destination of Dekalb-Peachtree Airport (PDK), Atlanta.

Preliminary radar data indicated that the airplane reversed direction and made several turns prior to losing radar contact and contact with Air Traffic Control.

The accident debris path was approximately 700 feet wide by 2,000 feet long, and main wreckage, which consisted of the fuselage, engine and inboard section of the wings, was oriented on a 237-degree heading. The outboard section of the left and right wing, rudder, horizontal stabilizer, elevator counter weights and the inboard section of the elevator were found about 700 feet north of the main wreckage in a field. The vertical stabilizer and midsection of the left and right elevator were found in a road approximately 900 feet to the northeast of the main wreckage. A midsection of the right flap was found the farthest from the main

wreckage, which was 2,000 feet east northeast of the main wreckage. All components of the airplane were located and control continuity was confirmed to all flight-control surfaces. An odor similar to Jet A fuel was noted throughout the debris field.

The engine remained attached to the firewall through wires and all engine mounts. Several components inside the engine exhibited rotational scoring. In addition, the compressor turbine was rotated by hand and continuity was confirmed between the compressor and the accessory gear box. No mechanical malfunctions or abnormalities with the engine that would have precluded normal operation were noted.

A Garmin 696 handheld Global Positioning System, a Garmin 496 handheld GPS, an Avidyne EX500, and an engine monitor were located, removed and sent to the NTSB Recorder Laboratory for download.

MMOPA ACCIDENT REVIEW

TALKING POINTS::

FAASTeam Program manager Eric Minnis says that about 15 percent of all day VFR accidents are fatal; night VFR accidents are fatal 30 percent of the time. Add IMC and the number jumps to 60 percent. There is no mystery here. If you hit something you cannot see with your airplane, the outcome is likely to be very bad. The likelihood of this type accident increases dramatically if there is a loss of control.

It is not possible to know, at this point, what went wrong over Georgia on the night of Dec. 2, and I do not wish to pick on the accident pilot no matter how egregious his errors, if any, may have been. I want to focus on possible causal factors and give you, the reader, a few "take-away" ideas that you might readily implement to make you a better, safer, more confident pilot.

It may interest you to know that General Aviation flies about 20 percent of the hours in the U.S. but is responsible for 80 percent of the accidents. Loss of control is still the low-hanging fruit in terms of preventable aviation accidents at about 75 percent of GA fatal accidents.

Proper personal preparation with respect to sleep, hydration and diet are among the first to consider for every flight. Sleep deprivation is well-documented to be an issue in more than a few accidents. Most SOPs (standard operating procedures) contain crew rest requirements to include a minimum of 12 hours of drug- and alcohol-free rest as well as seven hours of uninterrupted sleep within the last 24 hours prior to flight. Do not avoid drinking water to avoid having to pee. Cabin air at altitude is 10 times drier than desert air. If your urine is dark or you feel thirsty, you are definitely dehydrated. Carry and use bottled water and pee bags if you are so inclined.

Procedural discipline with respect to the proper use of pitot heat continues to be an issue. It is a training issue and has been for over 20 years in the PA-46 fleet. If you are deliberately not using pitot heat on every flight, you are misinformed. The biggest reason I am given for this very dangerous omission is the belief that the pitot (pronounced "pee-toe") tube will overheat if you use it too much. This is incorrect. This discussion is not about probability; it is about consequences. The pitot heat should be a runway environment-flow item, and it should be switched on before each and every flight regardless of planned altitude, outside air temperature or current/forecast weather.

The best advice I have heard for avoiding a loss-of-control accident is "just don't lose control in the first place." I am always suspicious of any advice which includes the word "just." Somehow it is always an over-simplification of the truth. If you should find yourself in an unusual attitude, use the following guideline: If the nose of the aircraft is low, level the wings and raise the nose; if the nose of the aircraft is high, lower the nose, and then level the wings. Know the power settings you need to

achieve Va (maneuvering speed) and icepenetration speed in your aircraft under all normal configurations. This will help you identify and eliminate a malfunctioning instrument more quickly. Know your autopilot forward and backward. No one should know more about the operation of your autopilot than you. Learn to use it properly and practice hand-flying whenever safety



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allows. Both skills are necessary. You should be able to fly the flight director by hand just as well as the autopilot does. Seek out upset training from an experienced instructor. This is completely different from aerobatic training.

Proper management of the cabin altitude includes a thorough knowledge of the cabin pressurization system; how it works as well as common failure modes. Knowledge of minimum oxygen requirements will help us focus on proper action in an emergency. In addition to some very specific crew training, the FAA requires a mask (not a cannula) above 17,500 feet and a very specific type of quick done mask above FL 250. These are small, albeit important, considerations that have a way of getting out of focus without good procedural discipline. If any of this is coming as a surprise to you, it may be time to relax by the fireplace with a current copy of the FAR/AIM. There is a very good iPad app by Tekk Innovations called FAR/AIM, and it is digitally searchable. I highly recommend it.

I write this article four times per year, and most of the time I have my pick of several serious PA-46 accidents. Unfortunately, this quarter is no different. The PA-46 community has had some low accident periods, but the average number of fatalities over the last five years is approximately the same as the prior five-year period and the same as each five-year period before that. It remains roughly twice as high as the rest of General Aviation. This is not good. We can do better.

Remember, good pilots are not thrillseeking risk takers. Good pilots are well trained risk managers who endeavor to possess ATP level skills and knowledge. Always strive to improve your riskmanagement capabilities by insisting on excellent training. Excellent training is achieved with aircraft specific procedural discipline in the use of checklists, flows, memory items and standard operating procedures; the same way, each and every time. Excellent training does not cost any more or take any longer. Excellent training will prevent accidents. If you are flying any PA-46, you should consider yourself lucky. In my opinion, it is the most capable GA aircraft available today. It is an excellent value and it is getting better every year.



Dick Rochfort is an Airline Transport Pilot and Master Certified Flight Instructor and has been a full-time flight instructor for more than 20 years. He is currently providing excellent train-

ing and related services exclusively to PA-46 instructors, owners and pilots worldwide through his company, RWR Pilot Training and the Professional Association of Pilot Instructors of which he is a founding member. If you would like more information on this or other strategies for improving the safety of your flying, or if you have comments or questions, you may contact Dick directly at mail@ rwrpilottraining.com.

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