



NOBLE DISTRACTIONS

Many accidents are the result of omission, not commission

BY DICK ROCHFORT, ATP, CFII
MASTER INSTRUCTOR

NTSB Identification: CEN11FA500
14 CFR Part 91: General Aviation
Accident occurred Sunday, July 24, 2011,
in Rantoul, Ill.
Aircraft: PIPER PA 46-350P,
registration: N46TW
Injuries: Three 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.

On July 24, 2011, about 0920 CDT, a Piper PA-46-350P, N46TW, operated and piloted by a private pilot, sustained substantial damage when it impacted power lines and terrain during takeoff at the Rantoul National Aviation Center Airport-Frank Elliott Field (TIP),

Rantoul, Ill. A post-impact ground fire ensued. The pilot and two passengers sustained fatal injuries. The personal flight was operating under 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed at the time of the accident. An instrument flight

rules flight plan was on file. The flight was originating from TIP at the time of the accident and was destined for Sarasota/Bradenton International Airport (SRQ), near Sarasota, Fla.

The day before the accident, the pilot obtained a weather briefing and filed an IFR flight plan for the flight to SRQ through an internet service.

A witness, who worked at the fixed base operator, stated that the pilot performed the preflight inspection of the airplane in a hangar. An estimated 80 pounds of luggage was loaded behind the airplane's back seat, and the airplane was towed out of the hangar. The witness said that the pilot's wife told the pilot that she had to use the restroom. The pilot said to hurry because

a storm front was coming. The engine start was normal. Both passengers were sitting in the rear forward-facing seats when the airplane taxied out.

A witness at the airport, who was a commercial pilot, reported that he observed the airplane takeoff from Runway 27. He said that the airplane started to turn to the south. He indicated that the landing gear was up when the airplane was about 500 feet above the ground. The witness stated that a weather front was arriving at the airport and that the strong winds from the northwest appeared to push the tail of the plane up and the nose down. The airplane descended and impacted power lines and terrain where the airplane subsequently caught fire. The airplane's engine was producing power until impact.

The pilot, age 56, held a Federal Aviation Administration private pilot certificate with airplane single-engine land and instrument airplane ratings. FAA records showed that the pilot's last medical examination was completed on Feb. 25, 2010, when he was issued a third-class medical certificate with limitations for corrective lenses. The pilot reported that he had accumulated 1,850 hours of total flight time at the time of the application for that medical certificate.

At 0915, the recorded weather at TIP was: wind 300 degrees at 14 knots gusting to 21 knots; visibility 10 statute miles; sky condition scattered 5,000 feet, scattered 10,000 feet; temperature 29 degrees C; dew point 24 degrees C; altimeter 30.06 inches of mercury; remarks lightning in the distant north and northwest.

Power lines were found separated and lying on the ground on the north side of a field, which was located about one-half mile south of Runway 27 near the intersection of South Century Boulevard and Tuskegee Avenue. The airplane came to rest on that field south of the power lines. A debris path started and was present from the separated power lines up to wreckage. The distance of that path was about 177 feet, and it was about 75 feet wide. The magnetic heading of

the path from the separated lines to the main wreckage was about 150 degrees. The field's grass along this path was charred. One propeller blade separated from its hub and came to rest on Tuskegee Avenue about 30 feet east of the start of the path. The remaining two blades were found embedded in terrain about 35 feet and about 38 feet south of the start of the path. A navigation light cover was found about 88 feet south of the path's start. The engine and forward fuselage came to rest on their left sides near the end of the path about 177 feet south of the path's start. The left wing separated from the fuselage and was found in the debris path about 15 feet northwest of the fuselage. The right wing was found on the east side of the fuselage. The empennage came to rest southwest of the fuselage. Sections of both wings and sections of the fuselage were discolored, deformed and melted.

An on-scene examination of the wreckage was conducted. Engine control cables were traced from the cabin to the engine. Flight

control cables were traced from the location of the cabin controls to their respective control-surface bell cranks. All flight-control cable separations exhibited a broom-straw appearance, and flight-control continuity was established. The main landing gears were in their wheel wells. The nose landing gear was located under the engine. The flap jackscrew exhibited 16 exposed threads, consistent with a 10-degree flap setting. The elevator trim had seven visible threads, consistent with a neutral trim setting. The fuel tank selector valve and its linkage were deformed and partially melted. The linkage position was consistent with the selection of the right fuel tank. The cabin door's pins were found extended. A section of power line was found in the area of the right wing root.

The engine's accessories were discolored and deformed. The engine accessories were removed. The engine crankshaft was rotated when a hand tool rotated an accessory gear. All cylinders but the No. 2 cylinder produced

a thumb compression when the crankshaft was rotated. Valve covers were removed, and some melted, aluminum-colored media was found around the lower portion of the No. 2 cylinder's exhaust rocker. The melted media was removed, and the crankshaft was rotated. Normal valve train operation was observed. The No. 2 cylinder's intake spring did not return its valve to its seated position. A lever was used to lift the valve into its seated position, and the cylinder produced a thumb compression. The turbocharger was discolored, deformed and melted. No engine or airframe pre-impact anomalies were detected.

Comments:
In the last issue, I wrote about an alleged autopilot-induced loss-of-control which resulted in a fatal accident near Milaca, Minn. This time, the loss-of-control happened in Rantoul, Ill. We know that loss-of-control is responsible for the vast majority of fatal accidents, which is shocking, but not

surprising. While loss-of-control is never easy to understand, I suggest we can still learn from these all-too-frequent, tragic events.

In one form or another, every pilot is probably asking himself the same question: How do I categorically separate myself from the type of pilot who gets involved in a fatal accident?

Was it a weight-and-balance issue? Not likely. High winds? It would be easy to condemn the pilot's decision to rush to depart with the approach of worsening weather and chalk it up to poor ADM, but the field was VFR with winds 330 at 14 gusting 21 knots — right at the aircraft's demonstrated crosswind component limitation. While weather might have been a factor, we have all probably flown comfortably in worse weather. I'm also pretty sure that the accident pilot performed satisfactorily at his last flight review and was able to "demonstrate knowledge of the elements" of slow flight and stalls and meet the minimum standards within the PTS. We may never know for

sure. Statistically, it was most likely caused by something within the pilot's control.

Serious PA-46 accidents tend to be the result of errors of omission, not errors of commission. In other words, it's not about what the pilot does wrong; it's about what the pilot fails to consider and/or do at all. Further study reveals that single-pilot operators usually fall prey to this cascading scenario when they become distracted. The FAA calls it the accident chain;


psychologists call it hyper-focusing. I call them errors of omission resulting from "noble distractions." I suggest that these noble distractions are, of themselves, worthy tasks albeit less important ones, done in the wrong sequence, at the wrong time, or at a pace which is less than real-time. Errors of omission resulting from noble distractions are perilously difficult to avoid in the single-pilot environment without a disciplined structure. The root of this human-factors issue

is bandwidth, or lack thereof, and no pilot is immune. These scenarios can have successful outcomes most of the time which can lull the pilot into a feeling of complacency. Since "practice makes permanent," we need to have and use methods which are repeatable and effective.

We can observe pilot groups who are consistently not involved in fatal accidents and consider learning from them as well. One such group is Cape Air. 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, CPT (cockpit procedures training), specificity training in the aircraft one-on-one with experienced, standardized instructors, using checklists, flows, memory items and strict adherence to SOP.

Every competent pilot stands on the three-legged stool of knowledge, skills and procedural discipline:

- Knowledge – I have been observing, coaching and evaluating pilots on a full-time basis for 20 years. In my experience, more than a few pilots have significant gaps in operational knowledge. If these gaps lay dormant and uncorrected, they could potentially lead to a noble distraction and an aviation accident. The resolution lies in taking an active interest in your continuing aviation education.
- Skills – PA-46 pilots, on average, fly fewer than 150 hours per year. Skills are perishable and need to be constantly and precisely iterated on a regular basis. Excellent pilots train to ATP standards, twice per year in their own aircraft with an experienced, type-specific flight instructor who understands these concepts.
- Procedural Discipline – Excellent pilots operate in the most professional way possible, completing tasks the same way each and every time, promptly and without rushing. Excellent pilots actively seek effective scenario-based training emphasizing proper use of checklists, flows, memory items and SOP.

Insist upon excellent, standardized training with pre- and post-training assessment. It doesn't cost any more or take any longer. 

Fly Safely – Train Often
 Dick Rochfort, ATP, CFII
 Master Instructor
 mail@rwrpilottraining.com

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 PA-46 Matrix, Malibu, Mirage and Meridian community worldwide.

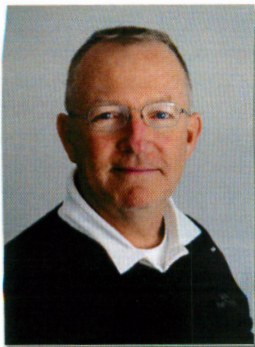


RWR Pilot Training



Matrix - Malibu - Mirage - Meridian

*Insurance Approved Initial & Recurrent Training Programs
 Designed to Make Your Flying Safe and Enjoyable
 Provided When and Where You Choose*



- * Become a safer, more confident pilot.
- * Learn tactical, practical methods designed specifically for the single pilot operator.
- * Develop your own safety management system (SMS) with checklists, flows, memory items & SOPs (standard operating procedures).

I will use doctrine and methods matched to your experience and background which will help you accomplish the proper tasks in real-time without distraction. Excellent training doesn't take any longer or cost any more.

NEW FOR 2012

PRO CARD CERTIFICATION

AIRCRAFT RELOCATION

THE MENTOR PROGRAM

BUYER CONSULTING

SIMULATOR TRAINING

EXPERT WITNESS

Dick Rochfort, ATP, CFII
Master Instructor

20 Years Experience
 Fully Insured

410 435-3333
 toll free 866 870-8196

www.rwrpilottraining.com
 mail@rwrpilottraining.com