PA-46 Mishap in Lubbock, Texas

IMC flight ends in tragedy **BY DICK ROCHFORT, ATP, CFII, MASTER INSTRUCTOR**

NTSB Identification: CEN15FA135
14 CFR Part 91: General Aviation
Accident occurred Wednesday, February 04, 2015
in Lubbock, TX
Aircraft: PIPER PA46 500TP, registration: N301D
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 Feb. 4, at 1930 CST, a Piper PA-46-500TP airplane, N301D, collided with a television-tower guy wire while on approach to Lubbock Preston Smith International Airport (LBB), Lubbock, Texas. The pilot, who was the sole occupant, was fatally injured, and the airplane was destroyed. The airplane was registered to Daedalus Air LLC and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91 as a business flight. Instrument meteorological conditions prevailed at the time of the accident, and an Instrument Flight Rules flight plan was filed en route. The flight departed the Cavern City Air Terminal (CNM), Carlsbad, N.M., and was en route to LBB.

According to the Air Traffic Control recording, the pilot was executing the RNAV Y instrument approach to Runway 35L. The controller vectored the airplane off the first approach for re-sequencing. While the airplane was being vectored for a second approach, contact with the pilot was lost, and the airplane was no longer visible on the radar display. Attempts to contact the pilot were unsuccessful.

According to a witness who was in the parking lot next to the TV tower, he heard the accident airplane overhead, and it sounded as if the airplane's engine was operating. He looked up and saw a large flash of light that filled his field of view. He observed the TV tower's red beacon lights turn off and then the tower collapsed on itself. He described the weather as cold with very low clouds and no precipitation.

According to surveillance video, recorded 1.6 miles northeast of the accident site, the airplane was observed in a 30-degree nose-low descent near the tower. There were multiple bright flashes of light, and the airplane was not observed again.

At 1853 CST, the weather observation for LBB, which was 10 miles north of the accident site, reported wind from 30 degrees at 21 knots gusting to 31 knots, eight miles visibility, overcast cloud layer at 800 feet, temperature 28 degrees F, dew point 25 degrees F, and altimeter 30.24 inches of mercury. Remarks: peak wind from 20 degrees at 34 knots and occasional blowing dust.

At 1947 CST, the special weather observation for LBB reported wind from 40 degrees at 18 knots gusting to 27 knots, seven miles visibility, overcast cloud layer at 700 feet, temperature 28 degrees F, dew point 25 degrees F, and altimeter 30.28 inches of mercury. Remarks: peak wind from 30 degrees at 31 knots.

If my assessment is correct, this accident pilot was experiencing tail plane ice. I believe this is true because he took his aircraft twice through an area of known moderate ice and the crash occurred in a manner consistent with this phenomenon.

Before the accident, a pilot report was issued for moderate rime ice at 5,200 feet mean sea level/1,918 feet above ground level about 10 miles south of the airport. The pilot acknowledged receipt of this report.

Lockheed Martin Flight Services had no contact information with the accident airplane on Feb. 4.

The wreckage has been retained for further examination.

AUTHOR'S COMMENTS:

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I am curious why the accident pilot entered this area in the first place, then inexplicably accepted a vector off the approach and back into the same area again. Did the pilot get a weather briefing to include the CIP/FIP (Current Icing Potential/Forecast Icing Potential)? Did the pilot have a Standard Operating Procedure? I think not because I know of no SOP which would allow for entry into an area of known moderate ice. Did he understand the implications of moderate ice? Here is the AIM discussion regarding airframe ice pilot reports:

7–1–21 PIREPS RELATING TO AIRFRAME ICING

The effects of ice on aircraft are cumula-

tive. Thrust is reduced, drag increases, lift lessens and weight increases. The results are an increase in stall speed and a deterioration of aircraft performance. In extreme cases, two to three inches of ice can form on the leading edge of the airfoil in less than five minutes. It takes but a half-inch of ice to reduce the lifting power of some aircraft by 50 percent and increases the frictional drag by an equal percentage.

A pilot can expect icing when flying in visible precipitation, such as rain or cloud droplets, and the temperature is between +02 and -10 degrees Celsius. When icing is detected, a pilot should do one of two things, particularly if the aircraft is not equipped with de-icing equipment: Get out of the area of precipitation or go to an altitude where the temperature is above freezing. This "warmer" altitude may not always be a lower altitude. Proper preflight action includes obtaining information on the freezing level and the above freezing levels in precipitation areas. Report icing to ATC, and if operating IFR, request new routing or altitude if icing will be a hazard. Be sure to give the type of aircraft to ATC when reporting icing. The following describes how to report icing conditions.

Trace: Ice becomes perceptible. Rate of accumulation slightly greater than sublimation. De-icing/anti-icing equipment is not utilized unless encountered for an extended period of time (over an hour).

Light: The rate of accumulation may create a problem if flight is prolonged in this environment (over an hour). Occasional use of de-icing/anti-icing equipment removes/prevents accumulation. It does not present a problem if the de-icing/anti-icing equipment is used.

Moderate: The rate of accumulation is such that even short encounters become potentially hazardous and use of de-icing/anti-icing equipment or flight diversion is necessary.

Severe: The rate of accumulation is such that de-icing/anti-icing equipment fails to reduce or control the hazard. Immediate flight diversion is necessary.

The reasons for the vector for a second attempt are of interest as well. Could it be the pilot was having problems with wind and ice on the first attempt? Did the pilot consider the limitations of his abilities and those of the aircraft? I believe that pilots fear airframe ice more than they respect it. A lot more respect is needed because fear leads to hopelessness and hope (or lack thereof) is not a weather avoidance strategy.

The problem, of course, is that pilots are human beings subject to confirmation bias errors ("get-there-itis"). It is sometimes difficult to think clearly when the wind is gusting over 30 knots. Humans will make mistakes. As single-pilot operators, we need to develop methods to discover the mistakes in a timely fashion. It is likely that this type of accident will happen again.

Now, the $64 question: How can you avoid such a circumstance? I recommend the following:

- Use a well-vetted set of checklists, flows, memory items and SOP.

- Train to ATP standards with an approved and standardized PA-46 Instructor Pilot at least twice per year until you reach those standards. MMOPA

Fly Safely - Train Often

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 focused on providing excellent training 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 or visit the PA-46 Pilot Reference Library: RWRPilotTraining.com. This article is available for reprint upon request.