



National Transportation Safety Board Aviation Accident Final Report

Location:	Whick, KY	Accident Number:	NYC06FA209
Date & Time:	08/28/2006, 1440 EDT	Registration:	N408JC
Aircraft:	Cessna 401A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	7 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane departed on a long cross country flight, with thunderstorms and rain squalls along the general route. Approaching the destination airport, the airplane entered a rain squall, stalled, and impacted the ground in an almost vertical descent. Other than the onboard weather radar being previously removed for maintenance, there were no mechanical anomalies noted with the airplane. The pilot, whose logbook was not recovered, was not instrument-qualified. Although he was recently observed flying four to five times weekly, when the pilot applied for a multi-engine rating about 3 1/2 months earlier, he indicated 107 hours of total flight experience.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The non-instrument-rated pilot's continued flight into instrument meteorological conditions, and his subsequent failure to maintain airspeed which resulted in an inadvertent stall. Contributing was the instrument meteorological conditions.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: APPROACH

Findings

1. (C) VFR FLIGHT INTO IMC - PERFORMED - PILOT IN COMMAND
2. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND
4. WEATHER CONDITION - CLOUDS

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On August 28, 2006, about 1440 eastern daylight time, a Cessna 401A, N408JC, was destroyed when it impacted mountainous terrain near Whick, Kentucky. The certificated private pilot and six passengers were fatally injured. Instrument meteorological conditions prevailed, and no flight plan was filed from Kickapoo Downtown Airpark (T47), Wichita Falls, Texas, to Wendell H. Ford Airport (W20), Hazard, Kentucky. The personal flight was conducted under 14 Code of Federal Regulations Part 91.

According to an employee at the destination airport, between 1430 and 1500, the pilot of the accident airplane called the fixed base operator (FBO) and reported, "30 miles southwest," and requested an airport advisory. The employee responded that the weather included a 1,000-foot overcast with 2 miles visibility, "and dropping fast," with "no report of other traffic."

Within "5 to 10 minutes" of the pilot's call, the FBO received a telephone call from Indianapolis Center, advising that they had an airplane on VFR flight following, and "had lost radar contact" with it. About "5 to 10 minutes" after that, the FBO received a telephone call from the Kentucky State Police about a reported airplane crash. The employee remembered that the weather had deteriorated from the initial pilot call to the Kentucky State Police call, about 20 minutes later, to 1/4 mile visibility and a 200-foot overcast.

According to a representative from the Federal Aviation Administration, the pilot had been receiving flight following from Memphis Center, and when he was told to switch to Indianapolis Center, he never transmitted on that frequency.

PILOT INFORMATION

The pilot, age 35, held a private pilot certificate, and on May 10, 2006, was issued an airplane multi-engine land rating. The pilot did not hold an instrument rating. The pilot's latest FAA third class medical certificate was issued on August 24, 2005.

The pilot's logbook was not located, and a friend, who was an airline transport pilot, thought he would have carried it in the airplane.

On the pilot's application for his multi-engine rating, dated May 10, 2006, he listed total flight time as 107.4 hours, and 3.3 hours of instrument instruction received. The pilot's friend also noted that the pilot had lately been flying the airplane four to five times a week. The pilot's friend further stated that he would have felt comfortable putting his family on the airplane with the pilot under VFR conditions, but had "many, many conversations with [the accident pilot] about getting his IFR rating."

AIRPLANE INFORMATION

The airplane was built in 1967, and was powered by two Teledyne Continental TSIO-520-C engines. According to a sales document, the pilot's company purchased it on April 28, 2006.

According to the pilot's friend, he and the accident pilot flew the airplane to Oklahoma City the previous Thursday to have a new GPS installed and the weather radar, which had never worked, repaired. While there, it was determined that the GPS was unable to be installed due to a missing part, and the radar unit was removed from the airplane for further troubleshooting. The two then flew the airplane back to Wichita Falls, and later that day, the

pilot flew his daughter to Dallas and back.

The pilot's friend also noted some minor maintenance items with the airplane, including some radio problems and that the left main fuel tank gauge wouldn't display properly.

The airplane's maintenance records revealed that the latest annual inspection was completed on September 2, 2005, at 6,387 hours of operation.

AIRPORT INFORMATION

Wendell H. Ford Airport had two runways, with the longer runway, 14/32, being 5,000 feet long and 100 feet wide. Airport elevation was 1,253 feet, and there was no operating control tower.

METEOROLOGICAL INFORMATION

Weather, reported at the airport at 1445, included a scattered cloud layer at 100 feet, a scattered cloud layer at 800 feet, an overcast cloud layer at 1,200 feet, and a visibility of 2 miles. Weather, reported at the airport at 1505, included a broken layer at 200 feet, an overcast layer at 700 feet, and a visibility of 1/4 mile in rain.

A weather radar depiction, at 1445, revealed moderate intensity echoes over the accident site at that time. Satellite imagery depicted cumulus clouds over the area, moving eastward.

A review of an airport ramp video camera recording revealed that a rain squall, that came from the general direction of the accident site, passed over the airport about 10 minutes after the accident occurred. Winds appeared to be variable, and wind gusts were estimated to be in excess of 25 knots.

Between 0731 and 0737 central daylight time, the pilot called Fort Worth Flight Service Station, to "see if [he] was going to make it out before the weather." The briefer asked if it would be IFR or VFR, and the pilot responded VFR, and confirmed that he'd be leaving "fairly soon," and that his flight would be direct to Hazard, across northern Arkansas. At the time of the brief, VFR flight was not recommended. There was an AIRMET for IFR conditions, Wichita Falls was on the southern edge, and it covered Oklahoma (ending between 14-17Z), Missouri and Western Kentucky (ending between 17-20Z). There was also a convective SIGMET for thunderstorm activity across southeast Oklahoma, and north and northwest Arkansas, and convective activity in parts of central Kentucky, but no advisories issued on it. There was also an area of thunderstorms 50 miles south, southeast of Springfield, Missouri, down to El Dorado, Arkansas, then southeast to Dallas- Fort Worth, Texas, and back up to 20 miles east, southeast to Macalister, Oklahoma, moving "straight north" at 15 knots. The briefer then provided the current conditions, including light rain at Wichita Falls, visibility 10 miles, a few clouds at 3,000 feet, a broken cumulonimbus layer at 5,000 feet, and another broken layer at 15,000 feet. There were also some showers in Kentucky, but convective sigmets "north of there." There was a "band" from Louisville to Standiford, Kentucky, to east of Bowling Green, Kentucky; and "a rather large cluster of storm cells, tops 35,000 to 45,000 feet right in central Kentucky, moving northeast, at 20 knots." The briefer also noted that they might move by the time the pilot got there, but just wanted to ensure he knew there were build-ups "right now" in north-central Kentucky. The pilot then asked if the best route was to head more towards Fort Smith, Arkansas, which the briefer agreed would keep him north of the precipitation. Then northeast of the Russellville, Arkansas, area, there were some buildups, but "moving away from you" about 30 knots. The pilot then said he appreciated it, and that he'd provide a report if he

saw anything.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located about 5 nautical miles, 290 degrees magnetic from the airport, in the vicinity of 37 degrees, 24.13 minutes north latitude, 83 degrees, 21.36 minutes west longitude. It was located on an approximately 40-degree, treed slope. There was no wreckage path; however, there was a straight-line indentation in the ground, along a 080/260-degree magnetic axis, about the same length as the width of the wings. Two craters were in the ground, to the south of, and near the indentation, that were consistent with engine impact points, with the left crater being closer to the indentation than the right. There was also a tree near the right side indentation that was cut off horizontally, about 40 feet above the ground, and also had two, approximately horizontal, slashes in the trunk, consistent with propeller strikes.

The remaining wing section was located downhill from the straight-line indentation, with the left wing remnants about 5 feet from the indentation, and the right wing about 20 feet from the indentation. The remaining sections of wing leading edge exhibited approximately straight-back crushing.

The empennage was folded over the left wing and engine, and the cockpit and cabin areas, which were consumed by fire, were between the empennage and the wing, connected mainly by control cables.

All flight control surfaces were accounted for at the scene. Flight control continuity was confirmed from the cockpit area to all flight control surfaces. The landing gear was in the retracted position.

The right engine propeller blades were broken out of the hub, and all three blades exhibited leading edge damage, as well as chordwise scoring and blade tip curling.

The left engine propeller remained attached to the hub, and the hub remained attached to the engine. All three blades exhibited chordwise scoring. One blade exhibited some aft bending near the hub, and more aft bending at the tip, along with trailing edge damage at the tip. Another blade exhibited some aft bending near the hub, and leading edge burnishing. The third blade exhibited some aft bending near the hub, and was separated about 1/3 the span with evidence of melting at the separation.

On January 17-18, 2007, both engines were disassembled at the manufacturer's facilities under National Transportation Safety Board oversight. No preimpact mechanical anomalies were noted.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot at the Kentucky State Medical Examiner Office, Louisville, Kentucky. Toxicological testing was subsequently performed by the FAA Forensic Toxicology Research Team, Oklahoma City, Oklahoma. No preimpact medical anomalies were noted.

ADDITIONAL INFORMATION

There were no recording devices installed in the airplane.

A radar track was determined for the airplane; however, data received terminated with the airplane about 13 nautical miles southwest of the crash site, at 3,800 feet.

A hand-held GPS unit containing rain water was recovered at the accident site. The unit was forwarded to the manufacturer to attempt a data download; however, it was unsuccessful.

Pilot Information

Certificate:	Private	Age:	35, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3	Last FAA Medical Exam:	08/01/2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	05/01/2006
Flight Time:	107 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N408JC
Model/Series:	401A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	401-0075
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	09/01/2005, Annual	Certified Max Gross Wt.:	6300 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	6387 Hours as of last inspection	Engine Manufacturer:	Teledyne Continental
ELT:	Installed	Engine Model/Series:	TSIO-520-C
Registered Owner:	Jason S. Christie	Rated Power:	300 hp
Operator:	Jason S. Christie	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	K20, 1250 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	1505 EDT	Direction from Accident Site:	110°
Lowest Cloud Condition:		Visibility	0.25 Miles
Lowest Ceiling:	Broken / 200 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 20 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	25° C / 23° C
Precipitation and Obscuration:	Rain		
Departure Point:	Wichita Falls, TX (T47)	Type of Flight Plan Filed:	None
Destination:	Hazard, KY (K20)	Type of Clearance:	None
Departure Time:	0920 CDT	Type of Airspace:	

Airport Information

Airport:	Wendell H. Ford (K20)	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	6 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	7 Fatal	Latitude, Longitude:	37.401944, -83.356111

Administrative Information

Investigator In Charge (IIC):	Paul R Cox	Report Date:	03/31/2008
Additional Participating Persons:	John W Cox; FAA/FSDO; Louisville, KY Ricardo Asensio; Cessna Aircraft Company; Wichita, KS John Kent; Teledyne Continental Motors; Mobile, AL		
Publish Date:	04/27/2015		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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