



National Transportation Safety Board Aviation Accident Final Report

Location:	Harrison, AR	Accident Number:	CEN14FA337
Date & Time:	07/02/2014, 0810 CDT	Registration:	N7762Y
Aircraft:	PIPER PA30	Aircraft Damage:	Substantial
Defining Event:	Fuel contamination	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

An airport security camera captured the pilot getting into the airplane, starting the engines, and taxiing for takeoff. No preflight inspection was recorded. About 2 minutes later, the camera and witnesses saw the airplane take off and immediately enter a gradual left turn about 400 feet above the ground. The bank angle increased to about 90 degrees before the airplane's right wing dropped, and the airplane disappeared from view. Examination of the left engine revealed water in the fuel flow divider, fuel injectors, engine-driven fuel pump, and selector valve fuel bowl. A sample taken from the fuel truck was tested and contained no water or contaminants. It is likely that, due to water in the fuel, the left engine lost power, which resulted in the airplane turning to the left. The pilot did not quickly and appropriately configure the airplane for one-engine flight, which resulted in a loss of control.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's loss of control of the airplane during initial climb because he failed to correctly compensate for the loss of power in the left engine. Contributing to the accident was water contamination in the fuel and the lack of an adequate preflight inspection by the pilot.

Findings

Aircraft	Performance/control parameters - Not attained/maintained (Cause) Fuel - Fluid condition (Factor)
Personnel issues	Lack of action - Pilot (Cause) Preflight inspection - Pilot (Factor)

Factual Information

HISTORY OF FLIGHT

On July 2, 2014, about 0810 central daylight time, a Piper PA-30 airplane, N7762Y, impacted terrain shortly after takeoff from the Boone County Airport (KHRO), Harrison, Arkansas. The pilot, the sole occupant on board, was seriously injured. The airplane was destroyed. The airplane was being operated by the pilot under the provisions of 14 Code of Federal Regulations (CFR) Part 91 as a personal flight. Visual meteorological conditions prevailed at the time of the accident, and no flight plan had been filed. The flight was originating at the time of the accident, and was en route to an unknown refueling stop. Its final destination was Salem, Oregon.

An airport security camera captured the pilot getting in the airplane, starting the engines, and taxiing away for takeoff. No preflight inspection was recorded. About two minutes later, the airplane took off. The accident was not captured. According to witnesses, however, the airplane lifted off runway 36 before reaching the 1,000-foot runway marker. It immediately entered a gradual left turn at about 400 feet. The bank angle increased to about 90° before the airplane dropped off on its right wing and disappeared from view. The point of impact was about 1,100 feet west of the runway.

PERSONNEL (CREW) INFORMATION

According to FAA documents, the pilot, age 66, held an Airline Transport Pilot certificate with an Airplane Multiengine Land rating, and Commercial privileges with Airplane Single-Engine Land and Sea ratings. He also held a Flight Instructor certificate with an Airplane Single-Engine rating. His Second Class Airman Medical certificate, dated June 25, 2014, contained the restriction, "Must wear corrective lenses for near and distant vision." When the pilot applied for this medical certification, he estimated his total flight time to be 11,500 hours. His logbook was never located. The pilot also held a Mechanic certificate with Airframe and Powerplant (A&P) ratings. He did not hold an Inspector Authorization (IA). There were no documents to indicate that he was current as either a pilot or as a mechanic.

AIRCRAFT INFORMATION

N7762Y (serial number 30-849), a model PA-30, was manufactured by the Piper Aircraft Corporation in 1965. It was powered by two Lycoming IO-320-B1A engines (serial number L-1833-55A, left; L-1826-55A, right), each rated at 160 horsepower, driving two Hartzell 2-blade, all-metal, constant speed, full-feathering propellers (model number HC-E2YL-2).

According to a single maintenance page found in the wreckage, both engines received 100-hour inspections on July 1, 2014, at 3,328.11 and 3328.42 total operating hours, respectively, and had accrued 1,314 hours since major overhaul. On the same date, the airframe received an annual inspection at a tachometer time of 3,328.11 hours.

METEOROLOGICAL INFORMATION

The following METAR (Meteorological Terminal Aviation Routine Weather Report or

Meteorological Aerodrome Report) was obtained from the KHRO Automated Surface Observing Systems (ASOS) at 0753:

Wind, 320 degrees at 6 knots; visibility, 10 statute miles; sky condition, clear; temperature 21 degrees Celsius (C.); dew point, 18 degrees C.; altimeter setting, 30.06 inches of mercury.

AERODROME INFORMATION

Boone County Airport (KHMO) is located 3 miles northwest of Harrison, Arkansas, at coordinates 36°15'41" North latitude, and 093°09'17" West longitude. It is situated at an elevation of 1,365 feet msl. It is equipped with one runway: 18-36, 6,161 feet x 150 feet, asphalt.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located about 1,100 feet west of the airport, near the edge of the perimeter fence, at geographical coordinates 36°15'37.95 North latitude, and 93°9'25.67 West longitude. There was a 20-foot ground scar that extended to the right wing. At the beginning of this ground scar was the separated right wing tip. The fuselage was split into two sections: the forward section was aligned on a magnetic heading of 320 degrees, and aft section was aligned on a magnetic heading of 020 degrees. The cabin roof had been peeled back by first responders to extricate the pilot. The left horizontal stabilizer and elevator were bent up. The right wing was severed about midpoint.

Both propellers remained attached to their engines. Blade A (descending) of the left propeller was bent aft about 30 degrees, and blade B (ascending) was straight, consistent with little or no rotation at impact. Blade A (descending) of the right propeller was twisted and bent aft about 80 degrees, and blade B (ascending) was twisted and bent forward. Both blades bore 90 degree striations on the cambered surfaces, consistent with high rpm at impact. Both spinners were unremarkable.

Examination of the cockpit revealed the throttles, propeller and mixture controls were full forward, consistent with a takeoff setting. The landing gear control was in the DOWN position. The left fuel selector was on the left main fuel tank, and the right fuel selector was between the right main and right auxiliary fuel tanks. Both boost pumps were OFF. The flap jackscrew exposed 22 threads. According to the Piper Aircraft Corporations, this would equate to 16° flaps down, sometimes used as a takeoff setting, particularly for short or soft fields.

MEDICAL AND PATHOLOGICAL INFORMATION

According to the pilot's son, his father had sustained a severe head injury and numerous fractures and internal organ damage.

TESTS AND RESEARCH

After the on-scene examination was completed, the airplane was transported to a nearby hangar where both engines were disassembled and examined. No anomalies were found with the right engine. Examination of the left engine, however, disclosed water in the fuel flow

divider, fuel injectors, engine-driven fuel pump, and selector valve fuel bowl. A fuel sample taken from the servicing fuel truck was tested and contained no water or contaminants.

ADDITIONAL INFORMATION

According to FAA records, the airplane was first registered to the pilot in April 1992. At some later time, the airplane was seized by the federal government. FAA sent the pilot two letters, the first dated November 1, 2011, and the second dated February 2, 2012, requiring that the airplane be re-registered in accordance with 14 CFR Part 14. This was never done and no reply was received. On March 1, 2011, the airplane was purchased by another individual at a seized property auction. No logbooks accompanied the purchase. On July 8, 2011, application for registering the airplane as N7762Y, LLC was made. The airplane was kept in the new owner's hangar at his airstrip. The new owner stated he never flew the airplane. On June 1, 2014, after buying back the airplane, the accident pilot submitted an application for registration under his name.

On July 1, 2014, the pilot flew the airplane to KHRO. He enlisted the services of a local pilot, regarded as an expert on the Piper PA-30 Twin Comanche, to fly with him. This pilot said the accident pilot flew the airplane well. He cautioned him to sump his fuel tanks and to open the fuel drains before each and every flight because the fuel caps were susceptible to allowing water to get into the fuel tanks.

In the wreckage, a paper copy of a Special Airworthiness Certificate was recovered. According to FAA inspectors, the Special Airworthiness Certificate was issued by an FAA office (OKA-MIDO-40) that didn't exist, and was sign by an FAA inspector (Marvin Berly) who didn't exist.

The maintenance logbooks were not in the airplane. However, a single piece of paper bearing entries for 100-hour engine inspections and an airframe annual inspection was recovered from the wreckage. The inspections were dated July 1, 2014, and both signed by the pilot, who was also a licensed A&P mechanic. According to the FAA inspectors, an airframe annual inspection can only be signed off by an IA.

The fixed base operator said the airplane had been parked on his ramp and neither he nor his employees observe the pilot working on the airplane. Additionally, the security camera did not capture such activity.

The wreckage was released to the Boone County Airport manager on July 4, 2014.

History of Flight

Initial climb	Fuel contamination (Defining event) Loss of engine power (total) Loss of control in flight
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	66
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last Medical Exam:	06/25/2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 11500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	PIPER	Registration:	N7762Y
Model/Series:	PA30	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	30-849
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:		Certified Max Gross Wt.:	3725 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-320-B1A
Registered Owner:	George A. Atiyeh	Rated Power:	160 hp
Operator:	George A. Atiyeh	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KHRO, 1365 ft msl	Observation Time:	0753 CDT
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	360°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	21° C / 18° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, 320°	Visibility (RVR):	
Altimeter Setting:	30.06 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Harrison, AR (HRO)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0810 CDT	Type of Airspace:	Class G

Airport Information

Airport:	Boone County (HRO)	Runway Surface Type:	Asphalt
Airport Elevation:	1365 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	6161 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious		

Administrative Information

Investigator In Charge (IIC):	Arnold W Scott	Adopted Date:	11/17/2014
Additional Participating Persons:	Scott Olson; FAA Little Rock FSDO; Little Rock, AR Lynn Braswell`; FAA Little Rock FSDO; Little Rock, AR John Butler; Lycoming; Williamsport, PA		
Publish Date:	11/17/2014		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=89595		

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