



National Transportation Safety Board Aviation Accident Final Report

Location:	Granbury, TX	Accident Number:	DFW05LA026
Date & Time:	12/01/2004, 1420 CST	Registration:	N7706P
Aircraft:	Piper PA-24-250	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The 4,500-hour pilot reported that he during takeoff initial climb, the airplane experienced a loss of engine power at an altitude of approximately 200 feet above ground level. The pilot immediately initiated a forced landing to a field, while verifying the fuel pump was on and the mixture was rich. The pilot stated that he "thought the left fuel tank was full" of fuel prior to departure. Examination of the airplane by a Federal Aviation Administration inspector revealed there was no visible fuel was found in the left main fuel tank, but fuel was observed in the right main fuel tank, left and right auxiliary fuel tanks. During the recovery process, the recovery crew drained approximately four tablespoons of fuel from the left wing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to fuel starvation. Contributing factors were the pilot's inadequate preflight planning/preparation, and the lack of suitable terrain for the forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) FLUID,FUEL - STARVATION
2. (F) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

3. OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

4. TERRAIN CONDITION - NONE SUITABLE
5. TERRAIN CONDITION - GROUND

Factual Information

On December 1, 2004, approximately 1420 central standard time, a Piper PA-24-250 single-engine airplane, N7706P, was substantially damaged during a forced landing following a loss of engine power during takeoff initial climb from the Pecan Plantation Airport (OTX1), near Granbury, Texas. The commercial pilot, sole occupant of the airplane, was seriously injured. The airplane was registered to and operated by the pilot. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 business flight. The cross-country flight was originating at the time of the accident and was destined for the Grayson County Airport (GYI), near Sherman, Texas.

The 4,500-hour pilot reported in the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) that he departed from Runway 18 with the left main fuel tank selected. At an altitude of approximately 200 feet above ground level, the engine "lost power." The pilot immediately verified that the electric fuel pump was turned on and mixture was set to rich. The pilot then switched to the right main fuel tank before switching back to the left main fuel tank. The pilot initiated a forced landing to a field approximately 1/2 mile south of the airport within a residential area. During the descent, the airplane struck trees approximately 35 feet in height before impacting terrain. The airplane came to rest in the upright position approximately 180 degrees from the original direction of travel.

The pilot further reported that earlier in the morning, he had requested that the local Fixed Base Operator (FBO) at GYI pull the airplane out of the hangar and top off with 100 Low Lead aviation fuel. Upon arriving at GYI, the pilot had realized the airplane had not been refueled. The pilot stated that he was running late and elected to have the FBO only fill the left and right auxiliary fuel tanks. After refueling, he noted that the right main fuel tank and left and right auxiliary fuel tanks were full and there were "only a few gallons" in the left wing fuel tank. After departure from GYI, the pilot stated he selected the right auxiliary fuel tank for the flight, and then selected the left main fuel tank prior to landing at OTX1.

The pilot added that this was the first time he had ever refueled the airplane without topping off both main wing tanks, and subconsciously thought the left main fuel tank was full prior to departure.

Examination of the airplane by the Federal Aviation Administration (FAA) inspector revealed the outboard portion of the right wing was crushed upwards and aft. The trailing edge of the left wing was wrinkled near the wing root. The fuselage was wrinkled aft of the baggage compartment to the empennage. The landing gear was observed in the retracted position. The Lycoming O-540-A1D5 engine remained attached to its mounts, and the firewall was bent. Two of the three propeller blades were crushed aft. One propeller blade was free of damage. No visible fuel was found in the left main fuel tank, but fuel was observed in the right main fuel tank and left and right auxiliary fuel tanks. During the aircraft recovery, the recovery company reported they had drained approximately four tablespoons of fuel out of the left fuel tank.

Pilot Information

Certificate:	Commercial	Age:	62, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	09/28/2004
Occupational Pilot:		Last Flight Review or Equivalent:	03/14/2003
Flight Time:	4500 hours (Total, all aircraft), 720 hours (Total, this make and model), 4350 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N7706P
Model/Series:	PA-24-250	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	24-2918
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	04/14/2004, Annual	Certified Max Gross Wt.:	2900 lbs
Time Since Last Inspection:	61.3 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3566.2 Hours as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-540-A1D5
Registered Owner:	On file	Rated Power:	250 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GDJ, 778 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	1425 CST	Direction from Accident Site:	290°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots / 16 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	15° C / -3° C
Precipitation and Obscuration:			
Departure Point:	Granbury, TX (OTX1)	Type of Flight Plan Filed:	None
Destination:	Sherman, TX (GYI)	Type of Clearance:	None
Departure Time:	1420 CST	Type of Airspace:	Class E

Airport Information

Airport:	Pecan Plantation Airport (OTX1)	Runway Surface Type:	Asphalt
Airport Elevation:	710 ft	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	3500 ft / 50 ft	VFR Approach/Landing:	Forced Landing

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	Latitude, Longitude:	32.353889, -97.676389

Administrative Information

Investigator In Charge (IIC):	Hector R Casanova	Report Date:	02/24/2005
Additional Participating Persons:	Dale Johnson; Federal Aviation Administration; Fort Worth, TX		
Publish Date:			
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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).