



National Transportation Safety Board Aviation Accident Final Report

Location:	Lakeway, TX	Accident Number:	FTW04FA204
Date & Time:	08/03/2004, 1159 CDT	Registration:	N601BV
Aircraft:	Piper PA-60-601P	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	6 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The commercial pilot, who managed the airplane and jointly owned it with one of the passengers, departed from a 3,930-foot-long, asphalt runway on a warm day. Weight and balance calculations, which investigators derived from estimated weights for total fuel, passengers, and cargo loads, determined that the airplane was likely within center of gravity limitations and about 208 pounds below its maximum gross weight. One witness stated that the airplane became airborne near the end of the runway before it began a shallow climb and clipped small branches on the tops of trees that were about 30 feet tall. That witness and others observed that the airplane continued past the trees, made a steep bank to the left, rolled inverted, and nose-dived to the ground. The witnesses' descriptions of the airplane's flightpath and the examination of the debris path and wreckage at the accident site are consistent with an impact following an aerodynamic stall.

According to calculations performed using the airplane's published performance data chart, for the airplane's configuration and estimated weight and the density altitude conditions at the time of the accident, the airplane would have required about 3,800 feet on a paved, level runway to clear a 50-foot obstacle with the pilot using the short-field takeoff technique. Although the chart does not make any allowances for an upsloping runway or provide data for a 30-foot obstacle, the runway slope is slight (a 27-foot rise over the entire length) and likely did not significantly increase the airplane's takeoff roll, and interpolation of the data revealed no significant distance differences for the shorter obstacle. However, according to the chart, the 3,800-foot distance is contingent upon the pilot holding the airplane's brakes, applying full engine power with the brakes set, and then releasing the brakes to initiate the takeoff roll. In addition, the airplane's ability to achieve its published performance parameters (which are derived from test flights in new airplanes) can be degraded by a number of factors, such as pilot deviations from the published procedures, reduced engine performance, or increased aerodynamic drag associated with minor damage and wear of the airframe.

It could not be determined where on the runway the pilot initiated the takeoff roll or at what point full engine power was applied. However, because the runway was only 130 feet longer than the airplane required (according to its published performance data), there was little

margin for any deviations from the published takeoff procedure. Although examination of the engines, propellers, and related systems revealed no evidence of precrash anomalies, postaccident damage precluded engine performance testing to determine whether the engines were capable of producing their full-rated power. Therefore, the significance of maintenance issues with the airplane (in particular, a mechanic's assessment that the turbochargers needed to be replaced and that the airplane's required annual inspection was not completed) could not be determined with respect to any possible effect on the airplane's ability to perform as published.

A review of Federal Aviation Administration (FAA) and insurance records revealed evidence that the pilot may have been deficient with regard to his ability to safely operate a PA 60-601P. For example, according to FAA records, as a result of an April 2004 incident in which the pilot landed the accident airplane on a wet grassy runway with a tailwind, resulting in the airplane going off the runway and striking a fence, the FAA issued the pilot a letter of reexamination to reexamine his airman competency. However, the pilot initially refused delivery of the letter; he subsequently accepted delivery of a second letter (which gave the pilot 10 days to respond before the FAA would suspend his certificate pending compliance) and contacted the FAA regarding the matter on Monday, August 2, 2004 (the day before the accident), telling an FAA inspector to "talk to his lawyer." In addition, as a result of the same April 2004 incident, the pilot's insurance company placed a limitation on his policy that required him to either attend a certified PA-60-601P flight-training program before he could act as pilot-in-command of the accident airplane or have a current and properly certificated pilot in the airplane with him during all flights until he completed such training. There was no evidence that the pilot adhered to either of the insurance policy requirements.

In addition, the FAA had a previous open enforcement action (a proposed 240-day suspension of the pilot's commercial certificate) pending against the pilot for allegedly operating an airplane in an unsafe manner in September 2003; that case was pending a hearing with an NTSB aviation law judge at the time of the accident.

Although the FAA's final rule for Part 91, Subpart K, "Fractional Ownership Operations," became effective on November 17, 2003, the regulations apply to fractional ownership programs that include two or more airworthy aircraft. There was no evidence that the pilot had a management agreement involving any other airplane; therefore, the rules of Part 91, Subpart K, which provide a level of safety for fractional ownership programs that are equivalent to certain regulations that apply to on-demand operators, did not apply to the accident flight. In the year before the accident, the FAA had conducted a ramp check of the pilot and the accident airplane and also conducted an investigation that determined there was not sufficient evidence that the pilot was conducting any illegal for-hire operations.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to successfully perform a short-field takeoff and his subsequent failure to maintain adequate airspeed during climbout, which resulted in an aerodynamic stall.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. OBJECT - TREE(S)

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

2. (C) AIRSPEED - INADEQUATE - PILOT IN COMMAND

3. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. OBJECT - WALL/BARRICADE

Factual Information

HISTORY OF FLIGHT

On August 3, 2004, at 1159 central daylight time, an Aerostar PA-60-601P twin-engine airplane, N601BV, was destroyed shortly after take off from Runway 16 at Lakeway Airpark (3R9), Austin, Texas. The commercial pilot and five passengers (three adults and two children) sustained fatal injuries. The airplane was registered to Aviation Flight Standards, LLC, Wilmington, Delaware, and operated by one of the passengers. A visual flight rules (VFR) flight plan was filed for the flight that departed Lakeway Airpark, about 1158, and was destined for the Wylie Post Airport (PWA), near Oklahoma City, Oklahoma. Visual meteorological conditions prevailed for the business flight (fractional ownership) conducted under Title 14 Code of Federal Regulations Part 91.

Several witnesses observed the airplane prior to, during and after the airplane departed. A relative of four of the passengers onboard the airplane stated that the pilot, a passenger and his brother-in-law landed at Lakeway Airport about 1030 that morning. They had flown in to pick-up his sister-in-law, niece and nephew, who had been visiting him for the past week. Prior to departure, the relative observed the passenger fill the right wing tank with 7.1 gallons of fuel from the self-service fuel pump. The passenger read out loud the amount of fuel that was being placed in the tank to the pilot as it was being fueled. The passenger then filled the left tank with fuel, but the relative did not know the amount, since he was preoccupied with saying good-bye to his family. However, he did observe the passenger to later place "a lot" of luggage, including two car seats and four overhead-sized pieces of luggage in the back of the airplane. The relative stated that the pilot "bragged" about his take-offs, so he stayed to observe it. The pilot sat in the left front seat, the passenger was in the right front seat, his brother-in-law sat in the middle seat, and his sister-in-law, niece and nephew sat in the aft seats. After the airplane was loaded, and the door shut, both engines were started, and the airplane taxied to the runway and started the take off roll. As the airplane passed by him from right to left, he got concerned because the airplane seemed to be taking "too long" to take off. He thought that the airplane should have become airborne a lot sooner. As the airplane approached the end of the runway, it became airborne but did not seem to climb and appeared to be "floating." It veered to the left, then "dove quickly," followed by an explosion.

A second witness had arrived at Lakeway Airpark about 1145 to pick up her father who was flying in from Dallas, Texas. While she was waiting, she purchased a soda from the vending machine, and saw a twin-engine airplane at the fuel pump. The witness noted two men, a woman, and a toddler at the picnic table located near the soda machine, and another man was fueling the airplane and loading the luggage. One of the men at the picnic table said, "Well, we're about ready to go." The witness grabbed her drink, and relocated to a covered hangar located at the end of the parking lot. The witness said she did not know how many people boarded the airplane, but did notice "a lot" of luggage and a car seat being loaded into the airplane. The airplane taxied to the end of the runway and did an engine run-up. She said, "The plane then came down the runway, as it passed, I was thinking the plane should be ready to lift-off and that it sounded "awful quiet." It continued down the runway, which looked to be almost at the end of the runway. It did not seem to have enough power to lift into the air. It just seemed to skim the trees and make a left bank turn, it looked as if it just headed straight down left wing and nose dive to the ground."

A third witness was detailing an aircraft at the Lakeway Airpark when he observed the airplane taking off. He said that his first thought was that the airplane should have been airborne already, and his second thought was that it was "too quiet." The witness said the airplane used up "every bit of runway." As the airplane became airborne it clipped the trees at the far end of the runway and had trouble gaining altitude and level flight. Shortly after, the airplane "tipped stalled" and flew into the ground, followed by a loud explosion.

A fourth witness was in his home located near the airport and was monitoring the airpark's UNICOM frequency. He heard the pilot announce the registration of the airplane, followed by his intentions to depart Runway 16 at Lakeway Airpark. Shortly after, the witness heard the pilot abruptly say, "Oh God! I'm in trouble...three with me..." During this transmission, the witness stated the pilot's voice was drowned out by the sounds of screaming. The witness ran to his front yard, and observed the airplane in "a nose-dive" toward the ground. The airplane disappeared from his view, followed by a huge fireball.

A fifth witness, a former flight instructor and multi-engine rated pilot, was on the tenth hole at a golf course adjacent to the accident site. It was about 1150, when he heard an airplane approaching from the north. He looked up and observed the airplane veering to the left in level flight about 500 feet above ground level (agl). He said it was yawing back-and-forth, the wings were "dipping" up and down, and the landing gear were retracted. The engines sounded as if they were at full power. Then, the airplane made a steep left bank, rolled inverted, and nose-dived into the back porch of a home. The witness said that when the airplane rolled inverted, it sounded as if both engines were instantaneously "shut-off."

A sixth witness was located on the fourteenth hole of the Falls Golf Course, when he heard the airplane. The witness described the engine noise as "extreme" and it interrupted his golf putt. He then looked up and saw the airplane banking to the left, almost inverted, as it descended behind trees. The witness then saw black smoke and fire explosion. He said there was no noise from the engines just prior to impact.

A seventh witness was working outside when he heard "a loud engine of some kind suddenly stop." He looked up and saw a small airplane flying low and then began to nose dive towards the golf course. A few moments later he heard an explosion and noticed a ball of flames.

Additionally, the week prior to the accident, an individual was in his hangar at Lakeway Airpark when he first noticed the pilot and the accident airplane parked at the fuel pump. He said that the airplane remained parked at the fuel pump for nearly an hour, and he figured the pilot might be having mechanical problems, so he approached the pilot and asked if he needed assistance. The pilot stated that he was just refueling the airplane and was preparing to fly to his home base in Oklahoma City, Oklahoma. The pilot asked the individual about "usable runway length" because he was considering a future trip to the airport in a Learjet, but "didn't think there was adequate runway length." In addition, it was mid-afternoon and warm, and the pilot expressed concern of having sufficient runway to depart safely in the accident airplane.

After the conversation, the individual returned to his hangar, which was located midfield on the east side of the runway. When he heard the airplane begin the take-off roll from the north end of runway 16, the individual stopped what he was doing and watched the airplane depart. He said that the airplane did not "rotate for climb-out" until the airplane was approximately two-thirds down the length of the runway and then made "a very flat climb clearing the trees by

a rather slim margin."

The accident occurred during the hours of daylight approximately 30 degrees 20 minutes north latitude and 97 degrees 59 minutes west longitude.

PILOT INFORMATION

The pilot held a commercial pilot certificate for airplane single-engine and multi-engine land, and instrument airplane. His last Federal Aviation Administration (FAA) first class medical was issued on June 1, 2004. At that time, the pilot reported a total of 3,500 flight hours. The FAA retained copies of the pilot's logbook but it only contained information dated between June 6, 1995, and October 15, 2001. A review of the endorsements section of the logbook revealed that the pilot had completed a biennial flight review on October 10, 2003.

AIRCRAFT INFORMATION

The 1975 Piper PA-60-601P, commonly known as the Piper Aerostar, was an all metal, six place, fully retractable tricycle gear, mid-wing, turbocharged and pressurized twin-engine airplane.

The airplane was equipped with two turbocharged equipped Lycoming, six cylinder, IO-540-S1AS, direct drive, horizontally opposed, air cooled, fuel injection engines, rated at 290 BHP at 2,575 rpm, with automatic controlled turbochargers installed.

The airplane was also equipped with two Hartzell, full feathering, constant speed, and 78-inch diameter propellers, controlled by Hartzell full-feather type propeller governors.

A review of maintenance records revealed that the last annual inspection was conducted on May 7, 2003, at an aircraft total time of 4,483.1 hours. According to FAA Federal Aviation Regulations, 14 CFR Part 91.409, an annual inspection was required.

An FAA inspector interviewed a mechanic, who was hired prior to the accident to perform an annual inspection. According to the inspector, the mechanic began the inspection, which included the removal of all inspection plates and the engine cowlings. During a visual inspection of the engines, he noted that the turbochargers were in poor condition and needed to be replaced. Before the mechanic could perform any maintenance to the airplane, the pilot contacted him and said that he needed the airplane and subsequently took possession of it before the annual inspection was completed.

The last entry in the aircraft maintenance logbook was dated June 30, 2004. At that time new tires and brake pads were installed on the main landing gear.

METEOROLOGICAL INFORMATION

Weather reported at Austin-Bergstrom International Airport (AUS), Austin, Texas, about 16 nautical miles east of Lakeway Airport, at 1153, was wind from 160 degrees at 3 knots, visibility 10 statute miles, scattered clouds at 3,500 feet and 15,000 feet, temperature 90 degrees Fahrenheit, dewpoint 75 degrees Fahrenheit, and a barometric pressure setting of 29.96 inches of Mercury. The density altitude was approximately 3,000 feet mean sea level.

Additionally, the Lower Colorado River Authority (LCRA) had a weather station located at the Lakeway Golf Course. The LCRA provided the following weather information:

At 1100, the temperature was 88 degrees Fahrenheit and the humidity was 56 percent.

At 1200, the temperature was 91 degrees Fahrenheit and the humidity was 52 percent.

At 1300, the temperature was 91 degrees Fahrenheit and the humidity was 51 percent.

AIRPORT INFORMATION

Lakeway Airpark runway 16/34 was a 3,930-foot-long and 70-foot-wide asphalt runway, with a field elevation of 900 feet msl. According to published airport information, there were 25-foot-tall trees located approximately 20 feet beyond the departure end of runway 16. In addition, a review of the airport's architectural blue prints revealed the gradient (slope) of the runway was not level. The elevation at the approach end of runway 16 was 680.47 feet and the elevation at the departure end of runway 16 was 782.21 feet, a difference of 101.74 feet msl.

WRECKAGE INFORMATION

An on-scene examination of the wreckage was conducted on August 3-4, 2004. All major components of the airplane were accounted for at the site. The airplane impacted an approximately 5-foot-high concrete retaining wall that supported the back patio of a private residence. The post-impact fire consumed the airplane and the back of the home sustained fire and structural damage. The wreckage came to rest at an elevation of approximately 900 feet mean sea level (msl), about 1.1 nautical miles south from Lakeway Airport.

Examination of the wreckage revealed that the flaps were in the zero-degree or up position. The cockpit area, fuselage, and a majority of the wings, the empennage, and tail control surfaces were consumed by fire and flight control continuity could not be established.

Both engines had sustained fire and impact damage. Examination of the left engine revealed that the three-bladed propeller assembly remained attached to the engine, and all three blades remained attached to the hub. The three-bladed propeller was removed and the engine was examined. The engine was rotated by manual rotation of the propeller flange, and compression and valve train continuity were established on each cylinder. Both magnetos were destroyed by fire and could not be examined. The top and bottom spark plugs were removed, and the electrodes appeared dark gray in color. The #1 and #3 bottom plugs were oil soaked. The oil sump screen was absent of debris. The engine driven fuel pump was intact, but exhibited fire damage. The pump's drive shaft was intact, and could be manually rotated. The fuel servo also exhibited fire damage, and the fuel screen was burned and absent of debris. The fuel manifold was intact, and exhibited fire damage. The manifold was disassembled. The spring was intact, but the diaphragm had been exposed to heat and was partially dissolved. The fuel injector nozzles were absent of debris.

The left and right turbochargers remained attached to the engine, but exhibited fire damage. The impeller blades were intact and did not exhibit any damage. However the impellers had shifted and could not be rotated. Both waste gates were in the full-open position and were not damaged.

Examination of the propeller blades revealed that the first blade was bent aft approximately 70 degrees at mid-span. The blade exhibited leading edge gouges. The second blade was bent aft approximately 10 degrees about 12-inches from the tip, and the outer one-third of the blade had melted away.

The propeller governor sustained fire damage and could not be bench tested. The unit was disassembled, and all mechanical components were intact.

Examination of the right engine revealed the propeller flange could be manually rotated. During rotation, compression was established for each cylinder except #2 and #5 due to contaminants on the valve seats. Valve train continuity was established for each cylinder except the #5 due to impact damage. Both magnetos were destroyed by fire and could not be examined. The top spark plugs were removed and exhibited varying colors of gray. A small amount of carbon deposits and a piece of safety-wire were found on the oil screen. The engine driven fuel pump was intact but, exhibited heat damage. The drive shaft was intact and could not be rotated. The fuel servo also exhibited fire damage, and the fuel screen was absent of debris. The fuel manifold valve was intact, and disassembled. The spring was intact, but the diaphragm had been exposed to heat and was partially dissolved. The fuel injector nozzles were absent of debris.

The right engine propeller assembly had separated from the engine at the flange, but all three-propeller blades remained attached to the hub. Examination of the blades revealed that one blade was bent aft approximately 45 degrees. It was twisted toward low pitch and exhibited leading edge damage. The blade counterweight was intact and the blade pitch knob was fractured. The second blade was not bent or twisted, but exhibited rotational scoring on the camber side. The blade counterweight and pitch change knob were intact. The third blade was not bent or twisted. The blade counterweight and pitch change knob were intact.

The propeller governor sustained fire damage and could not be bench tested. The unit was disassembled, and all mechanical components were intact.

The left and right turbochargers remained attached to the engine, but exhibited fire damage. The impeller blades were intact and did not exhibit any damage. However the impellers had shifted and could not be rotated. Both waste gates were in the full-open position and were not damaged.

All four turbochargers (one inboard and one outboard) from each engine were disassembled and examined by a Safety Board Materials Engineer. According to the Materials Laboratory Factual report, examination of each turbocharger and its respective hardware revealed there was no evidence of cross-threading or incorrect seating of the fittings. In addition, there was no evidence of oil leaks or lack of lubrication. All of the turbocharger turbine inlet and outlet V-band couplings were intact and properly torqued.

Examination of the airframe, engines, propellers, propeller governors and the turbochargers revealed no pre-impact mechanical deficiencies.

MEDICAL AND PATHOLOGICAL INFORMATION

The FAA Toxicology Research Laboratory, Oklahoma City, Oklahoma, conducted toxicological testing on the pilot. The results were negative for alcohol, carbon monoxide, and illegal drugs.

An autopsy of the pilot was conducted on August 4, 2004, by the Office of the Medical Examiner of Travis County, Forensic Center, Austin, Texas.

ADDITIONAL INFORMATION

An FAA inspector interviewed the pilot's business partner, who stated that he had flown with the pilot and two of the occupants that were killed in the accident from Oklahoma to Fort Worth/Meacham International Airport (FTW), Fort Worth, Texas, on the day before the accident. He stated that the pilot had a small duffel bag (flight case), one of the passengers had a small duffel bag and a briefcase, and the other passenger had a small duffel bag. Another

business partner drove the three gentlemen to the airport on the morning of August 3, 2004. The three gentlemen then flew to Lakeway Airport.

According to personal that operated a fixed base operator at FTW, the pilot arrived at their facility on August 2, 2004, around 1400. The pilot ordered fuel, and requested that the fuselage tank be topped-off and 15 gallons be placed in each wing for a total of 39.4 gallons. According to the line person that completed the order, the 15-gallons in each wing tank was not sufficient to top-off the tanks.

Fuel receipts retained from Lakeway Airpark revealed the pilot purchased 32.4 gallons of 100 LL aviation fuel prior to departure.

According to the father of one of the passengers the pilot usually departed with half-full wing tanks. And, a friend of the pilot reported that the pilot usually departed with enough full to complete a flight plus VFR/IFR reserves. This was done for weight and economic reasons.

The hand-held Garmin global positioning system (GPS) MAP 295 receiver was sent to Garmin in an attempt to retrieve any stored data, including the airplane's groundspeed, headings, latitude and longitude positions, and altitude. However, the unit had sustained significant impact and fire damage and data could not be retrieved.

The Safety Board prepared an estimated weight and balance calculation based on information provided by witnesses, the pilot's business associates, family members, and fuel and aircraft records. It was estimated that at the time the airplane departed it was under its published maximum gross weight (6,000 pounds) by approximately 208 pounds and was within the allowable center of gravity limits.

Interpolation of the airplane's published Total Take-off Distance to 50-Foot obstacle (flaps up) performance chart (which was found in the airplane) revealed the airplane would have required approximately 3,800 feet of runway to clear a 50-foot obstacle on a paved, level runway with the flaps retracted. The chart only provided data for aircraft departing from a flat, dry runway and made no allowance for elevation changes of the runway. In addition, a disclaimer printed on the chart stated, "If power is applied without the brakes set, distances apply from point where full power is applied." The chart required the airplane to obtain full engine power, and 29.5 inches of manifold pressure prior to brake release. The Safety Board was unable to confirm where on the runway the pilot initiated the take-off roll, or at what point full power was applied.

A review of the runway's original construction survey (blueprint) revealed the approach end of runway 16 to be 885.94 feet msl, and the departure end was 904.37 feet msl for a total increase of runway elevation of 18.43 feet. An on-site exam of the airport found there also was an additional rise near the center of the runway. The blueprint also showed the total available runway length as 3,983 feet with a total distance of 2,520 feet between the displaced thresholds.

According to documents retained by the FAA, the operator, Aviation Flight Specialists LLC, sold interest/shares of the airplane to customers, more commonly known as Fractional Ownership. This agreement allowed a customer to have access to an airplane and pilot, thus bypassing the inconvenience of airline travel and responsibility/cost of ownership. At the time of the accident, the pilot, who was also a partner in Aviation Flight Specialists LLC, conducted

all flights.

One of the adult male passengers that were killed on the flight had signed a Management Agreement with Aviation Flight Specialists, LLC, on June 7, 2004, for 50-percent interest in the airplane. Several other contracts were also retained.

Pilot Information

Certificate:	Commercial	Age:	36, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Without Waivers/Limitations	Last FAA Medical Exam:	06/01/2004
Occupational Pilot:		Last Flight Review or Equivalent:	10/01/2003
Flight Time:	3500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N601BV
Model/Series:	PA-60-601P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	61P-0272-05A
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:	05/01/2003, Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	4483.1 Hours as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540-S1A5
Registered Owner:	Aviation Flight Standards LLC	Rated Power:	325 hp
Operator:	Curtis Treadwell	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	AUS, 542 ft msl	Distance from Accident Site:	16 Nautical Miles
Observation Time:	1153 CDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Scattered / 3500 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	32° C / 24° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lakeway, TX (3R9)	Type of Flight Plan Filed:	VFR
Destination:	Oklahoma City, OK (PWA)	Type of Clearance:	None
Departure Time:	1157 CDT	Type of Airspace:	

Airport Information

Airport:	Lakeway Airport (3R9)	Runway Surface Type:	Asphalt
Airport Elevation:	909 ft	Runway Surface Condition:	Dry
Runway Used:	16	IFR Approach:	Unknown
Runway Length/Width:	3930 ft / 70 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	5 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	6 Fatal	Latitude, Longitude:	30.339722, -97.987778

Administrative Information

Investigator In Charge (IIC):	Leah D Yeager	Report Date:	03/25/2008
Additional Participating Persons:	Thomas Drake; FAA; San Antonio, TX John Butler; Textron Lycoming; Arlington, TX Robert Martelotti; The New Piper Aircraft Company; Vero Beach, FL Tom McCreary; Hartzell Propeller; Piqua, OH		
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](#).