



National Transportation Safety Board Aviation Accident Final Report

Location:	Paso Robles, CA	Accident Number:	LAX01FA103
Date & Time:	02/20/2001, 1900 PST	Registration:	N9176Z
Aircraft:	Piper PA-46-350P	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The accident occurred during a dark night departure from a private unlighted airstrip. The pilot had landed, assisted by the headlights of a car, on the landing strip/road about 1830. After dropping off a passenger, he departed about 1900. The departure direction was towards a sparsely populated area of rolling hills. Local area residents reported hearing a plane depart, followed by a loss of engine sound, and an impact in a grape vineyard. Examination of the wreckage revealed that the airplane impacted the ground in a nose down attitude. According to maintenance records, the last recorded annual inspection occurred 12 months and about 299.5 flight hours prior to the accident. Approximately 5 months before the accident, the FAA Certified Repair Station (CRS) that performed the maintenance on the airplane had given the pilot/owner a 15-item list of "grounding discrepancies." The discrepancies were: Cracked nose cowling; fraying seat belts; LH mag switch broken; LH window cracked; LH windshield crazed; stall warning inoperative; turbine inlet temperature inoperative; door latch safety inoperative; several hydraulic components leaking; main gear trunion pins worn; several cracks in wing lower skins; fuel leaks; loose rivets on RH flap; wing spar bolts loose; and elevator trim cable frayed. According to the CRS manager, the only item that had been repaired prior to the accident was the cracked nose cowling. However, an engine log entry indicated the TIT gage had also been replaced. Additionally, several witnesses reported that the pilot had been flying the airplane with an inoperative landing gear retract system for about 4 months. During post accident examination of the wreckage, investigators were able to verify that many of the listed discrepancies still existed; however, none of these discrepancies could be directly linked to the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot/owner/operator's failure to maintain control of the airplane during the takeoff initial climb resulting in an in-flight collision with terrain. Contributing to the accident was the dark night light condition.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. MAINTENANCE - IMPROPER - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. TERRAIN CONDITION - CROP

Factual Information

HISTORY OF FLIGHT

On February 20, 2001, about 1900 Pacific standard time, a Piper PA-46-350P, N9176Z, collided with terrain during the takeoff and initial climb from Mac Gillivray Ranch, a private airstrip, near Paso Robles, California. The airplane was registered to Confidential Management Services, Inc., a company operated by the pilot. The personal flight was being operated by the pilot under 14 CFR Part 91. The private pilot received fatal injuries, and the airplane was destroyed. Dark night visual meteorological conditions prevailed, and no flight plan had been filed. The flight was destined for Santa Ana, California.

According to a family member, the pilot had landed about 1830 at Mac Gillivray Ranch on the unlighted airstrip/road with the assistance of car headlights. The pilot dropped off a passenger and departed about 1900. Local area residents reported hearing what they thought to be an airplane taking off from the airstrip, followed by a loss of engine sound, and an impact or explosion. After a local area search, the wreckage was located about 0311 on February 21.

PILOT INFORMATION

According to Federal Aviation Administration (FAA) records, the certificated private pilot was rated for airplane single engine land and instrument. The pilot's last recorded third-class medical examination, dated January 12, 1999, reported a total flight time of 12,000 hours. The pilot's last flight physical examiner was contacted regarding his possible physical renewal. The pilot had made an appointment for January 29, 2001, at 1000, but did not show up for the appointment. The pilot's logbook was not recovered nor was biennial flight review information.

AIRPLANE INFORMATION

Maintenance logbooks and records were recovered from Southern Aviation Maintenance, Inc., Santa Ana, and from the pilot's office in Upland, California. According to the airframe logbook, the last recorded annual inspection occurred on February 20, 2000, at Hobbs meter 954.0 hours. The Hobbs meter at the accident site indicated 1,253.5 hours; 299.5 hours since the annual inspection. The airplane had operated with five different engines. The fifth engine was installed on August 3, 1996, at Hobbs meter reading 2,941.2. The replacement of the Hobbs hour recording meter occurred at an unknown time. No airplane total times were found, or brought forward since 1996. An estimated total flight time of 4,194.7 hours was achieved through cross referencing maintenance and logbook information.

Two days after the accident, the Southern Aviation Maintenance manager presented the Safety Board investigator with a copy of a letter to the pilot regarding 15 discrepancies referred to as the "grounding discrepancies." The letter was dated September 19, 2000, and was signed by the Chief Inspector of the FAA Certified Repair Station #Z5SR421Y. The discrepancies were:

1. Nose cowling cracked
2. Seat belts are fraying
3. LH mag switch broken
4. LH window cracked
5. LH windshield crazed and scratched

6. Stall warning inop
7. TIT inop
8. Door latch safety inop
9. Several hydraulic components leaking: actuators, sequence valves, hoses
10. Main gear trunion pins worn
11. Several cracks on wing lower skins
12. Fuel leaks from LH & RH fuel tank access panels
13. Loose rivets on RH flap
14. Wing spar bolts loose
15. Elevator trim cable frayed

According to the manager, to the best of his knowledge, only one item had been repaired, the cracked nose cowling. However, an engine log entry dated October 4, 2000, stated "Installed loaner TIT gauge (71302-01)."

During the course of the investigation, the Safety Board investigator was informed by the vice-president of Confidential Management Services that the pilot had been operating the airplane for about 4 months with the landing gear in the extended or down position due to some mechanical problem. The FAA inspector obtained the same information from the pilot's son and ex-wife. The Southern Aviation maintenance manager indicated that the hydraulic power pack was damaged from running the pump out of hydraulic fluid. The pilot could not afford a new pump, nor could he afford to resolve the other discrepancies.

A copy of an e-mail dated April 6, 2000, from the pilot to the Southern Aviation maintenance manager was obtained. The subject of the e-mail was "9167Z Landing gear," and the pilot described the problem as "the nose gear not fully extending and locking." The e-mail stated in part, "should any of my surviving family or attorneys try to hold you responsible for any potential future mishaps that are related to this landing gear issue, please feel free to show them this correspondence as proof that I absolve you, your staff and insurance carrier of any responsibility."

A maintenance invoice dated March 10, 2000, lists a charge of \$325.00 for a TIT probe. The TIT system is required by Lycoming and Piper to be functioning at all times during the operation of the airplane for proper temperature control of the engine. Lycoming, the engine manufacturer, provides additional operating recommendations to supplement the Pilot Operating Handbook and Engine Owner's Manual. The supplement stresses the importance of temperature control and the destructive affect of overtemping. Piper Mandatory Service Bulletin 995A establishes a 250-hour service life for TIT probes. Piper Service Letter 1008, reminds operators that the TIT system is a required system and must be maintained. Lycoming Mandatory Service Bulletin 531B provides for a 250-hour inspection of the turbochargers and tailpipes for in-service wear and damage.

METEOROLOGICAL INFORMATION

According to the nearest weather reporting facility at Paso Robles Airport, at 1753, the weather was: wind calm; visibility clear with 10 statute miles; temperature 48 degrees Fahrenheit; dew

point 32 degrees Fahrenheit; and altimeter 30.21 inHg.

Local area witnesses reported the weather as clear at the time of the accident, as did a California Highway Patrol pilot who participated in the initial phase of the search for the wreckage. On the evening after the accident, before and after the accident time, the on-scene Safety Board investigator observed a departure direction towards a sparsely populated area of rolling hills and with a dark night.

AIRPORT INFORMATION

According to the FAA sectional aeronautical chart for Los Angeles, the Mac Gillivray Ranch private airstrip is located about 8 miles west of Paso Robles. The chart indicates a 3,400-foot runway at an elevation 1,534 feet msl. Examination of the airstrip/joint use road revealed it to be asphalt paved and unlighted. According to the State of California Division of Aeronautics, the runways are designated 4 and 22. Runway 4 has a 500-foot displaced threshold and runway 22 has an 800-foot displaced threshold. The runway pavement width is 30 feet, and the accident airplane wing span was 43 feet. The area around the airstrip is rolling hills.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located in an area of grape vineyards belonging to Tablas Creek Vineyard. The rolling hill site was sloping about 20 degrees southward. The ground was damp clay soil. The wreckage was located about 5 rows from the south border of the east-west rows near the Tablas Winery building.

The engine was buried below the soil surface at a near vertical angle from the horizontal. The vineyard surface was estimated about 10 degrees sloping downward southeast. The top of the engine and fuselage were pointing about 055 degrees. The departure runway direction is 220 degrees.

The landing gear was found in the extended position with all hydraulic actuators extended. The wing flap examination revealed about 15 actuator threads visible. According to Piper Aircraft, 10 degrees of flaps is 13 exposed threads, and 20 degrees is 21 threads. The gear handle was found in the up position.

The left wing was still attached with spanwise leading edge and underside crushing. The partially deployed left flap was attached. The aileron was attached only at the outboard hinge point.

The right wing was attached to the fuselage. The wing outboard panel, about mid wing flap, was severed, and located forward of the wing across some vineyard rows with the aileron attached. The full length of the wing flap remained attached to the inboard section of the wing and fuselage.

The aft fuselage was severed at the aft pressure bulkhead and leading edge of the vertical stabilizer. The cabin section of the fuselage was severed about the main wing spar area. The firewall was crushed and accorded aft with a crush angle about 50 degrees.

The elevator was found full up with the trim tab trailing edge about .5 inch up; examination of the trim system revealed the trim setting to be neutral. The left 1/16-inch trim cable was found frayed over about 3 inches near the empennage left fairlead. The left side electric trim cable was found kinked. The elevator and horizontal stabilizer remained intact and attached. The vertical stabilizer and rudder remained in position with about 5-degree right rudder input.

Fuel spray damage to vines and weeds was observed. Some fuel was spilled during recovery of the wreckage. The fuel selector was found selected to the right fuel tank. Some residual fuel was recovered from fuel sumps and plumbing. A small amount of water was found in the right fuel sump. The fuel screen from the airframe fuel sump was slightly crushed from over torquing.

The engine, mixture, and propeller controls were found full forward. Examination of circuit breakers revealed open breakers for the engine monitor, hydraulic pump control, turn coordinator, flap motor, ty-buss nonessential, global positioning, and ADF No 1.

After-market instrument panel placards were found affixed to the panel. Directly in front of the pilot was one stating "Pressurized flight prohibited," and below the annunciator light panel was one stating "Low vacuum warning inop." Neither of the two lamps were found in their respective receptacles.

The lower section of the air stair door was closed and latched. The upper section was closed but unlatched. The nose baggage door appeared to be latched at the time of impact.

The King KCS55 HSI bug indicated 280 degrees, the OBS was 040 degrees, and the unit was nav and heading flagged. The heading was 340 degrees. The pilot's (left side) rate of climb indicated down 2,000 feet per minute. The right side rate of climb indicated down 4,000 feet per minute. The right turn coordinator indicated a near maximum roll to the left. The left encoding altimeter indicated 9,540 feet msl and 30.22 inHg. The right altimeter indicated 1,575 feet msl and 29.95 inHg. The left horizon indicated a nose down condition and roll right about 5 degrees. The right horizon indicated a nose down condition and roll right about 5 degrees. The right directional gyro indicated 135 degrees.

The engine was disassembled to the crankshaft. Mechanical gear train continuity was established. Finger compression was established on all cylinders. Magneto timing was confirmed. The impulse-coupled magneto was hand sparked. The uncoupled magneto would not spark by hand. The oil filter was removed and cut open. The filter pleats were free of foreign material. The right turbocharger shaft nut was missing and the blades were damaged. The left turbocharger was heat stressed and distorted with major operational damage from overtemping. One of two dry air pressure/vacuum pumps was inoperative from an existing sheared drive coupling.

MEDICAL AND PATHOLOGICAL INFORMATION

On February 22, 2001, the San Luis Obispo County Medical Examiner performed an autopsy on the pilot. During the course of the procedure samples were obtained for toxicological examination by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma. The results of the analysis were negative for carbon monoxide, cyanide, ethanol, and drugs.

TESTS AND RESEARCH

The damaged turbine inlet temperature indicator (TIT) and probe were sent to an FAA Approved Repair Station for examination and functional testing. The indicator met the manufacturer's specifications for a bench test. The damaged TIT probe failed to function for the bench test.

The damaged Shadin fuel flow system was removed and sent to the manufacturer, Shadin Company Incorporated, to try and recover non-volatile memory. The information recovered was the fuel gallons used from the last takeoff, 39.8, and the gallons remaining, 80.9.

The damaged Safe Flight stall warning system lift computer and lift transducer were sent to the manufacturer for examination and functional testing. The lift computer met all test specifications and had been serviced at Safe Flight in February 2000. The lift transducer was electrically inoperative, and examination revealed mechanical damage to the vane movement.

The Parker Hannifin 25-6A landing gear hydraulic power pack was shipped to the manufacturer for functional testing and examination. The unit as received did not pass Parker Hannifin engineering test procedure (ETP) 1015. Service bulletins 7020, 7029, 7044, 7045, and 7047 were not complied with. Functional testing of the pump assembly revealed that when gear up was selected, the gear retracted. The pressure switch failed to shutoff the motor at a given pressure that was being reached, causing hydraulic oil to be discharged out of the vent hole. When the down gear cycle was selected, the cycle was complete except for motor shutoff, again at a given pressure, which was being reached. Disassembly revealed a foreign contaminant inside the reservoir system with subsequent fouling of the pressure switches.

ADDITIONAL INFORMATION

On February 15, 2001, an FAA Safety Counselor witness located at Paso Robles Airport, requested via an e-mail that the FAA arrange for a ramp inspection of the airplane and/or the pilot. The counselor expressed the opinion that the pilot needed a "wake-up call." He described various discrepancies with the airplane that had been observed by witnesses at the airport, including a broken main cabin door restraint, the pilot's flying the airplane with the landing gear extended, and the "very poor visual appearance" of the airplane.

On May 20, 2003, the Safety Board released the wreckage to the insurance company representative for the owner.

Pilot Information

Certificate:	Private	Age:	47, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	None Expired	Last FAA Medical Exam:	01/12/1999
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	12000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N9176Z
Model/Series:	PA-46-350P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	4622059
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	02/20/2000, Annual	Certified Max Gross Wt.:	4300 lbs
Time Since Last Inspection:	299.5 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4194 Hours	Engine Manufacturer:	Avco Lycoming
ELT:	Installed, not activated	Engine Model/Series:	TIO-540-AE2A
Registered Owner:	Confidential Management Services	Rated Power:	350 hp
Operator:	PEYTON B. SCHUR	Operating Certificate(s) Held:	None
Operator Does Business As:	CONFIDENTIAL MGMT SERVICES	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	PRB, 836 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	1853 PST	Direction from Accident Site:	70°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.21 inches Hg	Temperature/Dew Point:	9°C / 0°C
Precipitation and Obscuration:			
Departure Point:	Paso Robles, CA (Q89)	Type of Flight Plan Filed:	None
Destination:	SANTA ANA, CA (SNA)	Type of Clearance:	None
Departure Time:	1900 PST	Type of Airspace:	Class G

Airport Information

Airport:	Mac Gillivray (pvt) (Q89)	Runway Surface Type:	Asphalt
Airport Elevation:	1534 ft	Runway Surface Condition:	Dry
Runway Used:	22	IFR Approach:	None
Runway Length/Width:	3400 ft / 30 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	35.467222, -120.851389

Administrative Information

Investigator In Charge (IIC):	GEORGE E PETTERSON	Report Date:	03/30/2004
Additional Participating Persons:	JR Williams; Federal Aviation Administration; San Jose, CA Charles Little; The New Piper Aircraft Co.; Vero Beach, FL Mark Platt; Textron Lycoming; Williamsport, PA		
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/ .		

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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](#).