



Aviation Investigation Final Report

Location:	CASTLEWOOD, South Dakota	Accident Number:	CHI97LA279
Date & Time:	August 31, 1997, 19:00 Local	Registration:	N2743P
Aircraft:	Piper PA-22	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

According to the pilot-in-command, the purpose of the flight was to fly over one of his passenger's farm. The pilot stated that the flight was, 'At a low level.' The pilot reported that as the airplane approached the accident location something fell off the dashboard and he leaned forward and down to identify what it was. The pilot stated that, 'As I leaned down, I apparently forced the yoke forward, lowering the attitude.' The pilot reported that when he looked up, 'it was too late, the trees were right in front of me. I gave back pressure on the elevator, but again too late and struck the trees.' The pilot stated that the aircraft still was able to climb and that there were tree branches hanging on the wing. The pilot reported that he noticed that the elevator had limited deflection and decided to make a precautionary landing in a nearby field. Post accident investigation showed substantial damage to the right wing spar, elevator, and vertical stabilizer.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain adequate clearance from the trees.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: MANEUVERING

Findings

1. (C) ALTITUDE/CLEARANCE - INADEQUATE - PILOT IN COMMAND
2. (F) LOW ALTITUDE FLIGHT/MANEUVER - PERFORMED - PILOT IN COMMAND
3. (F) OBJECT - TREE(S)

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Factual Information

On August 31, 1997, at 1900 central daylight time, a Piper PA-22, N2743P, piloted by a private pilot, sustained substantial damage after it collided with trees while maneuvering near Castlewood, South Dakota. Visual meteorological conditions prevailed at the time of the accident. The personal flight was operating under the provisions of 14 CFR Part 91 and was not on a flight plan. The pilot and two passengers reported no injuries. The local flight departed a private airstrip near Castlewood, South Dakota at 1845.

According to the pilot-in-command's written statement, the purpose of the flight was to fly over one of his passenger's farm. The pilot stated that the flight was, "At a low level." The pilot reported that as the airplane was nearing the accident location something fell off the dashboard and he leaned forward and down to identify what it was. The pilot stated that, "As I leaned down, I apparently forced the yoke forward, lowering the attitude." The pilot reported that when he looked up, "it was too late, the trees were right in front of me. I gave back pressure on the elevator, but again too late and struck the trees." The pilot stated that the aircraft still was able to climb and that there were tree branches hanging on the wing. The pilot reported that he noticed that the elevator had limited deflection and decided to make a precautionary landing in a nearby field.

Post accident investigation showed substantial damage to the right wing spar, elevator, and vertical stabilizer.

Pilot Information

Certificate:	Private	Age:	53, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Expired	Last FAA Medical Exam:	July 7, 1994
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	3100 hours (Total, all aircraft), 650 hours (Total, this make and model), 3051 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N2743P
Model/Series:	PA-22 PA-22	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-3050
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	July 31, 1997 Annual	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:	1 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2943 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-A2B
Registered Owner:	J & J AVIATION INC	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	ATY ,1748 ft msl	Distance from Accident Site:	335 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	12°
Lowest Cloud Condition:	Clear	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	23°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(PVT)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	18:45 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	45.330642,-96.760108(est)

Administrative Information

Investigator In Charge (IIC):	Robbins, Wesley
Additional Participating Persons:	LYLE W ERICKSON; RAPID CITY , SD
Original Publish Date:	July 23, 1999
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=10690

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).