



National Transportation Safety Board Aviation Accident Final Report

Location:	BELOIT, KS	Accident Number:	CHI94LA126
Date & Time:	04/01/1994, 1253 CST	Registration:	N3735E
Aircraft:	PIPER PA-36-300	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE PILOT REPORTED A LOSS OF ENGINE POWER OCCURRED DURING THE INITIAL CLIMB, THE AIRPLANE STALLED, AND CONTACTED A HANGAR. WITNESSES REPORTED SEEING THE AIRPLANE ENTER A CLIMBING 60 DEGREE BANK TURN AFTER TAKEOFF. THEY STATED THE AIRPLANE APPEARED TO STALL DURING THE TURN AND DESCEND TO IMPACT WITH THE HANGAR. THE WITNESSES ALSO STATED THE ENGINE SOUNDED TO BE AT 'CLIMB POWER' OR 'FULL POWER' DURING THE ENTIRE ACCIDENT SEQUENCE. POST ACCIDENT INSPECTION AND TEARDOWN OF THE ENGINE FAILED TO DISCLOSE ANY PREIMPACT FAILURE/MALFUNCTION.

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 sufficient airspeed during the initial takeoff climb.

Findings

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

Findings

1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND

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

Findings

3. OBJECT - AIRPORT FACILITY

Factual Information

On April 1, 1994, at 1253 central standard time, a Piper PA-36- 300, N3735E, registered to Carlson Aerial, Inc., collided with the terrain during the initial takeoff climb from runway 17 at the Beloit Municipal Airport, Beloit, Kansas, while on a personal flight. Visual meteorological conditions prevailed and no flight plan was filed. The pilot was seriously injured and the airplane was substantially damaged. The flight was originating at the time of the accident.

The pilot reported that at an altitude of 150 feet a loss of engine power was experienced. He continued to report, "The loss of power resulted in a stalled condition with insufficient altitude to recover." The airplane descended into the roof of a hangar.

One witness who saw the airplane takeoff stated it made a 60 degree bank, climbing right turn after takeoff to an altitude of about 300 feet. According to this witness the airplane appeared to stall. This witness stated, "Sounded like climb power at all times." Another witness who recounted a similar accident scenario stated, "Sounded like full power on engine."

The Federal Aviation Administration (FAA) Inspector who traveled to the accident site reported slash marks were present in the hangar. The aircraft wreckage was moved to Lubbock, Texas, and a teardown was performed which was overseen by an inspector from the Lubbock, Texas, Flight Standards District Office of the FAA. This inspector reported there was no indication of any internal failure of the engine.

The fuel control unit was removed and sent to Allied Signal in Canada for testing. The fuel pump was forwarded to Pratt & Whitney in Canada for testing. The fuel control unit was bench tested and was found to perform "within the acceptable test limits." The fuel pump could not be bench tested due to impact damage. A teardown of the pump disclosed, "The pump element itself was found to be in a satisfactory condition." The teardown of the fuel pump and the bench testing to the fuel control unit were overseen by an inspector from Transport Canada. See attached report for further details.

Pilot Information

Certificate:	Private	Age:	40, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	06/24/1993
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	357 hours (Total, all aircraft), 47 hours (Total, this make and model), 332 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N3735E
Model/Series:	PA-36-300 PA-36-300	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	36-7960059
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	03/22/1994, Annual	Certified Max Gross Wt.:	4800 lbs
Time Since Last Inspection:	5 Hours	Engines:	1 Turbo Prop
Airframe Total Time:	2200 Hours	Engine Manufacturer:	P&W
ELT:		Engine Model/Series:	PT6A-6
Registered Owner:	CARLSON AERIAL, INC.	Rated Power:	570 hp
Operator:	CARLSON AERIAL, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SLN, 1272 ft msl	Distance from Accident Site:	48 Nautical Miles
Observation Time:	1252 CST	Direction from Accident Site:	125°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	22° C / -3° C
Precipitation and Obscuration:			
Departure Point:	(K61)	Type of Flight Plan Filed:	None
Destination:	HASTINGS, NE (HSI)	Type of Clearance:	None
Departure Time:	1252 CST	Type of Airspace:	Class G

Airport Information

Airport:	MORITZ MEMORIAL (K61)	Runway Surface Type:	Concrete
Airport Elevation:	1416 ft	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	3610 ft / 60 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	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	PAMELA S SULLIVAN	Report Date:	01/12/1995
Additional Participating Persons:	RONALD E CENTER; WICHITA, KS ROGER WALKER; LUBBOCK, TX ANDRE TURENNE; MONTREAL, CD		
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](#).