



National Transportation Safety Board Aviation Accident Final Report

Location:	LAKELAND, FL	Accident Number:	MIA96FA229
Date & Time:	09/09/1996, 2010 EDT	Registration:	N262X
Aircraft:	Aero Commander 680E	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

After takeoff, the pilot transmitted to ATC controllers that he had lost power in an engine. He made a steep turn to the left back toward the airport, then a right turn toward the runway. The aircraft's nose dropped in the right turn, and the aircraft crashed nose first on a taxiway. Postcrash examination of the aircraft structure and flight control systems revealed no preimpact failure or malfunction. The left propeller was found in the feathered position, and the right propeller was found in a high blade angle. The right propeller had damage consistent with the engine operating. Teardown examination of the engines and propellers showed no findings that would have resulted in engine or propeller malfunction or failure. At the time the aircraft was purchased by the pilot in March 1996, he had not flown for about 10 years. Since purchasing the aircraft, he had logged 2.5 hours of transition/checkout in the airplane and had flown it for a total of about 22 hours, mostly on 'sight seeing flights.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to maintain minimum control speed, while returning to the airport for a precautionary landing, following a reported loss of power in one engine, which resulted in a loss of aircraft control and an uncontrolled collision with the terrain. Factors relating to the accident were: loss of power in the left engine for undetermined reason(s), and the pilot's apparent lack of familiarity with single engine operation in the make and model of aircraft.

Findings

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

Findings

1. 1 ENGINE
2. (F) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

3. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND
4. (C) AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND
5. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
6. (F) LACK OF RECENT EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

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

Factual Information

HISTORY OF THE FLIGHT

On September 9, 1996, about 2010 eastern daylight time, an Aero Commander 680E, N262X, registered to a group of individuals, crashed while returning to the Lakeland Linder Regional Airport, Lakeland, Florida, while on a Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft was destroyed and the private-rated pilot was fatally injured. The flight was originating at the time of the accident.

The flight departed runway 27 at Lakeland, en route to Winter Haven, Florida. Shortly after the takeoff, air traffic controllers observed the aircraft flying from the southwest back toward the airport, at about 150-200 feet. A short time later, the pilot reported he had an engine out. Controllers cleared the flight to land. No further transmissions were received from the pilot. Controllers observed the aircraft fly over the approach end of runway 9 while on a northeast heading. The aircraft entered a right bank and the aircraft's nose then dropped. The aircraft descended and impacted the ground nose first on the parallel taxiway to runway 9.

PERSONNEL INFORMATION

Federal Aviation Administration records indicate the pilot held a private pilot certificate with airplane single engine land and airplane multiengine land ratings, last issued on August 3, 1977. The pilot held a second class medical certificate issued on November 13, 1995, with the limitation that the holder shall possess correcting glasses for near vision while exercising the privileges of his airman certificate. One of the other owners of the accident aircraft stated the accident pilot had not flown for about 10 years before their purchase of the aircraft in March 1996. Since that time, the accident pilot had not flown the accident aircraft very much.

A flight instructor at Aviation Career Academy stated that at the time of the accident the pilot was enrolled in the instrument rating preparation course and the multiengine instrument course. On the day of the accident this instructor performed one simulator session and two flights in a Beech 76 with the pilot. On the first flight in the Beech 76, the pilot was slow at performing engine out procedures. He attributed this to the pilot being "rusty" from not having flown for so many years. On the second flight in the Beech 76, they performed three or four engine out simulations and the pilot performed satisfactory. The pilot had completed preparation for the instrument rating and he was scheduled to take the FAA checkride for the rating on September 10, 1996. Additional information on the pilot is contained in this report under First Pilot Information and in attachments to this report.

AIRCRAFT INFORMATION

Information on the aircraft is contained in this report under Aircraft Information and in attachments to this report.

METEOROLOGICAL INFORMATION

Visual meteorological conditions prevailed at the time of the accident. Additional meteorological information is contained in this report under Weather Information.

WRECKAGE AND IMPACT INFORMATION

The aircraft crashed on taxiway "A", 100 feet east of taxiway "A2", at the Lakeland

Linder Regional Airport, Lakeland, Florida. Examination of the crash site showed the aircraft impacted at a slow forward speed while at a high vertical descent rate and angle, while on a 71-degree heading. At the point of initial impact on the taxiway is the outline of a feathered propeller to the left of the fuselage marks and propeller cut marks to the right of the fuselage marks. After initial impact the aircraft slid to the northeast where it came to rest in the grass to the north of the taxiway.

Examination of the aircraft wreckage showed all components of the aircraft necessary for flight were located on or around the main wreckage. Continuity of all flight control systems was established. All separation points within the flight control systems were consistent with overstress separation. The landing gear was in the retracted position at impact and partially extended during impact. The wing flaps were in the retracted position. There was no evidence of pre or postcrash fire on or around the aircraft.

Examination of the aircraft fuel system showed each of three fuel tanks contained fuel. The left engine fuel selector control in the cockpit was found on the left outboard tank position. The electrically operated fuel valves for the left engine were found in the left outboard tank open position and center fuel tank closed position. The right engine fuel selector control in the cockpit was found in the fuel off position. The right engine fuel valves were found in the center tank open position and right outboard tank closed position. Each of the valves and control switches operated normally in postcrash tests.

Examination of the left propeller showed internal impact marks and blade damage consistent with the propeller being in the feathered position at the time of impact. The left propeller governor operated normally during postcrash tests. Examination of the right propeller showed internal impact marks and blade damage consistent with the propeller being in the normal operating range and rotating at the time of ground impact. The right propeller governor operated normally during postcrash tests. No evidence of failure or malfunction of the left or right propeller or left or right governor was found.

Teardown examination of the left engine showed that continuity was established with the crankshaft, camshaft, valve train, accessory drives, and reduction gear assembly. The engine contained oil, the oil screens were clean, and there were no signs of oil starvation damage. The reduction gear assembly had no rotational damage. The supercharger drive gear had no damage. The left engine fuel system contained uncontaminated fuel. The carburetor inlet screens contained no debris and the carburetor operated normally during post crash tests. The engine-driven fuel pump had a leak in the drive shaft seal but the pump produced adequate fuel flow and pressure to sustain normal engine operation. Each magneto operated normally during postcrash tests and each ignition harness tested normal. Each spark plug had deposit colors consistent with normal engine operation.

Teardown examination of the right engine showed that continuity was established with the crankshaft, camshaft, valve train, accessory drives, and reduction gear assembly. The crankshaft counterweights were found installed in incorrect positions. No damage from this finding was present. The engine contained oil, the oil screens were clean, and there were no signs of oil starvation damage. The reduction gear assembly had rotational damage consistent with operation at the time of ground impact. The supercharger driveshaft gear teeth were torn from the shaft consistent with rotation at the time of ground impact. The right engine fuel system contained uncontaminated fuel. The carburetor inlet screens contained no debris and the carburetor operated normally during postcrash tests. The engine driven fuel pump had a

leak in the drive shaft seal but the pump produced adequate fuel flow and pressure to sustain normal engine operation. Each magneto operated normally during postcrash tests and each ignition harness tested normal. Each spark plug had deposit colors consistent with normal engine operation.

Additional wreckage and impact information is contained in Supplements A and B and in attachments to this report.

MEDICAL AND PATHOLOGICAL INFORMATION

Postmortem examination of the pilot was performed by Dr. Stephen J. Nelson, Medical Examiner, Lakeland, Florida. The cause of death was attributed to multiple blunt force traumatic injuries. No findings which could be considered casual to the accident were reported.

Postmortem toxicology studies on specimens obtained from the pilot were performed by Dr. Nelson's office and Dr. Dennis Canfield, Manager, FAA Toxicology Laboratory, Oklahoma City, Oklahoma. The tests were negative for carbon monoxide, cyanide, ethanol, basic, acidic, and neutral drugs. The tests were positive for caffeine. Additional medical and pathological information is contained in Supplement K and attachments to this report.

ADDITIONAL INFORMATION

The aircraft wreckage was released by NTSB to Bradford N. Fuller, aircraft owner, on September 12, 1996. Components retained by NTSB for examination were returned to Mr. Fuller or his designee.

Pilot Information

Certificate:	Private	Age:	51, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	11/13/1995
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	6893 hours (Total, all aircraft), 22 hours (Total, this make and model), 6433 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aero Commander	Registration:	N262X
Model/Series:	680E 680E	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	745-38
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	05/05/1996, Annual	Certified Max Gross Wt.:	7500 lbs
Time Since Last Inspection:	87 Hours	Engines:	2 Reciprocating
Airframe Total Time:	5284 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	G50-480-B1C6
Registered Owner:	ROBERT D. SIMPSON	Rated Power:	340 hp
Operator:	ROBERT D. SIMPSON	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	LAL, 142 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	2012 EDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Scattered / 5000 ft agl	Visibility	12 Miles
Lowest Ceiling:	Broken / 20000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	29° C / 29° C
Precipitation and Obscuration:			
Departure Point:	(LAL)	Type of Flight Plan Filed:	None
Destination:	WINTER HAVEN, FL (GIF)	Type of Clearance:	VFR
Departure Time:	2007 EDT	Type of Airspace:	Class D

Airport Information

Airport:	LAKELAND LINDER REGIONAL (LAL)	Runway Surface Type:	Asphalt
Airport Elevation:	142 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	8500 ft / 150 ft	VFR Approach/Landing:	Precautionary Landing

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:	

Administrative Information

Investigator In Charge (IIC):	JEFFREY L KENNEDY	Report Date:	06/30/1997
Additional Participating Persons:	PETER STRUNK; ORLANDO, FL EDWARD ROGALSKI; WILLIAMSPORT, PA ROGER J ADERMAN; ARLINGTON, WA ROGER W STALLKAMP; 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/ .		

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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](#).