



Aviation Investigation Final Report

Location: Livermore, California Accident Number: WPR15FA174

Date & Time: June 1, 2015, 20:58 Local Registration: N1348C

Aircraft: Piper PA 22-135 Aircraft Damage: Destroyed

Defining Event: Loss of control in flight **Injuries:** 1 Fatal

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The airline transport pilot departed on a local night flight. Shortly after takeoff, he reported a control difficulty to air traffic control tower personnel; he stated that he was going to make a circle, and troubleshoot the issue. There were no further transmissions from the pilot. A witness about 1/2 mile away from the airport said that the airplane caught his attention when he heard the engine cut out. He looked up, but couldn't see the airplane as it was dusk. He finally saw two outboard lights, one on each wing, and realized that the airplane was in a nose dive. According to the witness, it was not spinning, and the engine sounded like it was at full throttle. Radar data indicated that the airplane departed about on runway heading, and about 2 minutes into the flight it began a 180° turn. The airplane lost about 1,100 ft of altitude in 18 seconds during the turn. The radar track continued in a straight line until ground impact. Postaccident examination revealed no anomalies that would have precluded normal operation of the airframe or engine or would have caused a control difficulty.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of control for reasons that could not be determined, because examination of the airframe and engine revealed no anomalies that would have precluded normal operation.

Findings

Not determined (general) - Unknown/Not determined

Factual Information

History of Flight

Maneuvering Loss of control in flight (Defining event)

Uncontrolled descent Unknown or undetermined

On June 1, 2015, about 2058 Pacific daylight time, a Piper PA22-135, N1348C, collided with terrain while maneuvering near Livermore Municipal Airport, Livermore, California. The airline transport pilot sustained fatal injuries, and the airplane was destroyed. The pilot/owner was operating the airplane under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The local personal flight departed Livermore at 2052. Night visual meteorological conditions prevailed, and no flight plan had been filed.

Shortly after takeoff, the pilot reported a control difficulty to air traffic control tower personnel; he stated that he was going to make a circle, and troubleshoot the issue. There were no further transmissions from the pilot.

A witness about 1/2 mile away from the airport said that the airplane caught his attention when he heard the engine "cut out." He looked up, but couldn't see the airplane as it was dusk. He then heard the engine "revving to a higher rpm like a crop duster swooping down." He heard the engine sputter twice, and then increase rpm again. He finally saw two outboard lights, one on each wing, and realized that the airplane was in a nose dive. According to the witness, it was not spinning, and the engine sounded like it was at full throttle.

A plot of recorded radar data indicated that the airplane climbed about on the runway heading to a maximum mode C reported altitude of 3,100 ft mean sea level. About 2 minutes into the flight, the airplane made a 180° left turn, and lost 1,100 ft of altitude in 18 seconds. The radar track continued in a straight line until it ended; the total duration of the flight was 2 minutes 48 seconds.

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Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer	Age:	75,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	November 6, 2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	26501 hours (Total, all aircraft)		

The last flight recorded in the pilot's notebook was on February 6, 2015. The pages from the previous 2 years totaled over 49 hours with none listed in the accident make and model.

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N1348C
Model/Series:	PA 22-135	Aircraft Category:	Airplane
Year of Manufacture:	1953	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-1141
Landing Gear Type:	Tailwheel	Seats:	
Date/Type of Last Inspection:	June 1, 2014 Annual	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3612 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	0-290-D2
Registered Owner:	On file	Rated Power:	135 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

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Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dawn
Observation Facility, Elevation:	KLVK,400 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	20:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 2200 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	17°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Livermore, CA (LVK)	Type of Flight Plan Filed:	None
Destination:	Livermore, CA (LVK)	Type of Clearance:	None
Departure Time:	20:52 Local	Type of Airspace:	

Airport Information

Airport:	Livermore LVK	Runway Surface Type:
Airport Elevation:	400 ft msl	Runway Surface Condition:
Runway Used:		IFR Approach: None
Runway Length/Width:		VFR Approach/Landing: None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	1 Fatal	Latitude, Longitude:	37.720832,-121.760002

A National Transportation Safety Board (NTSB) investigator and a Federal Aviation Administration (FAA) inspector examined the wreckage on site on June 2, 2015.

The first identified point of ground contact was a series of ground scars consistent with the left and right main landing gear, gear legs, engine, cowling, left and right wing lift struts, and wings. A propeller blade had separated about 6 inches from the hub along an angular plane. The rest of the propeller was in

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the principal impact crater; it was not charred. The main wreckage was burned, and was in the middle of a charred area. All of the airplane's fabric covering was consumed by fire.

The debris path was about 108 ft long, and oriented on a 318° magnetic heading. All major structural components of the airplane were located at the accident site.

Further examination of an aileron cable distortion by the NTSB Office of Research and Engineering Materials Laboratory determined that the cable distortion was a result of overload conditions. The postaccident examination of the airplane did not reveal any mechanical anomalies that would have precluded normal operation.

Medical and Pathological Information

The Alameda County Coroner completed an autopsy on the pilot, and determined that the cause of death was blunt force trauma. The FAA Bioaeronautical Sciences Research Laboratory performed toxicological testing of specimens of the pilot, which were negative for volatiles and tested drugs. The laboratory did not perform tests for carbon monoxide or cyanide.

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Administrative Information

Investigator In Charge (IIC): Plagens, Howard Additional Participating David Jensen: Oakland CA			
Additional Participating David Jensen: Oakland : Oakland : CA	Investigator In Charge (IIC):	Plagens, Howard	
Persons: Charles Little; Piper Aircraft Inc; Vero Beach, FL Mark Platt; Lycoming Engines; Williamsport, PA	Additional Participating Persons:	· • • • • • • • • • • • • • • • • • • •	
Original Publish Date: July 20, 2017	Original Publish Date:	July 20, 2017	
Last Revision Date:	Last Revision Date:		
Investigation Class: <u>Class</u>	Investigation Class:	<u>Class</u>	
Note: The NTSB traveled to the scene of this accident.	Note:	The NTSB traveled to the scene of this accident.	
Investigation Docket: https://data.ntsb.gov/Docket?ProjectID=91284	Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=91284	

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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.

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