



Aviation Investigation Final Report

Location:	Talkeetna, Alaska	Accident Number:	ANC12LA107
Date & Time:	September 17, 2012, 12:00 Local	Registration:	N8433D
Aircraft:	Piper PA-22-160	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor reported that he assumed control of the airplane shortly after takeoff to demonstrate a low-altitude maneuver to the private pilot. He said that during a left turn, the nose started to drop, the airplane descended, and it sounded like the speed was increasing. The flight instructor added power, leveled the airplane’s wings, and released the back pressure on the control yoke trying to break any stall, but the airplane continued to descend. As the airplane approached the ground, the instructor increased back pressure on the control yoke, but there was no response. The airplane impacted the ground. The flight instructor reported that there were no preaccident mechanical anomalies with the airplane that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's failure to maintain adequate airspeed while maneuvering at a low altitude, which resulted in an inadvertent stall.

Findings

Personnel issues	Aircraft control - Instructor/check pilot
Aircraft	Airspeed - Not attained/maintained

Factual Information

History of Flight

Maneuvering-low-alt flying	Aerodynamic stall/spin (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On September 17, 2012, about 1200 Alaska daylight time, a Piper PA-22-160 airplane, N8433D, sustained substantial damage when it collided with terrain while maneuvering at a low altitude, about 15 miles south of Talkeetna, Alaska. The airplane was being operated by Alaska Floats and Skis, Talkeetna, as a visual flight rules (VFR) instructional flight, under the provisions of Title 14, Code of Federal Regulations, Part 91, when the accident occurred. Visual meteorological conditions prevailed. The certificated flight instructor received serious injuries, and the private pilot received minor injuries. The flight departed Talkeetna about 1150.

In a written statement to the NTSB dated October 1, the flight instructor reported that after departing from the Talkeetna Airport, they flew south towards Willow, Alaska. The pilot flew along the Susitna River at 200 AGL to work on coordination, and get the feel of the airplane. After about 10 minutes the flight instructor took control of the airplane, and made a left turn toward a gravel bar on the east side of the river. The flight instructor said that during the turn the nose started to drop, the airplane descended, and it sounded like the speed was increasing. He then added engine power, leveled the wings, and released the back pressure on the control yoke, trying to break any stall, but the airplane continued to descend. As the airplane approached the ground, he added more back pressure on the control yoke with no response. The airplane impacted the ground, sustaining substantial damage to the wings and fuselage.

The flight instructor reported that there were no preaccident mechanical anomalies with the airplane.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	22, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	November 26, 2011
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 2, 2012
Flight Time:	953 hours (Total, all aircraft), 40 hours (Total, this make and model), 631 hours (Pilot In Command, all aircraft), 160 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Private	Age:	20
Airplane Rating(s):	Single-engine land; Multi-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 1 Without waivers/limitations	Last FAA Medical Exam:	May 5, 2011
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 9, 2012
Flight Time:	160 hours (Total, all aircraft), 100 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8433D
Model/Series:	PA-22-160	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-5688
Landing Gear Type:	Tailwheel; Ski/wheel	Seats:	4
Date/Type of Last Inspection:	July 8, 2012 Annual	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3444 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	C126 installed, activated, did not aid in locating accident	Engine Model/Series:	O-320 SERIES
Registered Owner:	ALASKA FLOATS & SKIS INC	Rated Power:	160 Horsepower
Operator:	ALASKA FLOATS & SKIS INC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	Overcast / 4000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 14 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	15°C
Precipitation and Obscuration:			
Departure Point:	Talkeetna, AK (PATK)	Type of Flight Plan Filed:	Company VFR
Destination:	Talkeetna, AK (PATK)	Type of Clearance:	None
Departure Time:	12:00 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	62.093055,-150.118606

Administrative Information

Investigator In Charge (IIC):	Lewis, Lawrence
Additional Participating Persons:	David Gillespie; FAA FSDO-03; Anchorage, AK
Original Publish Date:	January 22, 2013
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=85069

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](#).