



Aviation Investigation Final Report

Location:	El Monte, California	Accident Number:	WPR17LA112
Date & Time:	May 26, 2017, 20:15 Local	Registration:	N6832D
Aircraft:	Cessna 175	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	3 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot was practicing touch-and-go landings during an instructional flight with a flight instructor on board. During the eighth landing, the airplane drifted to the right of the runway just before touchdown, and the flight instructor applied full left rudder to correct as the airplane touched down. The airplane's nose yawed to the right. The student applied full power, the airplane became airborne, and the stall horn activated. The flight instructor pushed the nose down, but the elevator control had "no travel." The instructor was unable to regain control, and the airplane subsequently settled back to the ground and impacted a drainage channel and trees. It could not be determined whether there was any communication or coordination between the student and the instructor that resulted in the student's application of engine power.

Postaccident examination revealed no mechanical malfunctions or failures of the flight control system that would have precluded normal operation. Witness marks identified on the side of the fuselage revealed that the flaps were extended to 30° at the time of impact. It is likely that, by the time the flight instructor attempted to regain control in this configuration, the airplane was at or near its critical angle of attack, and the instructor was unable to regain control before the airplane experienced an aerodynamic stall, impacted the runway, and subsequently departed the runway surface.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's delayed remedial action, which resulted in an exceedance of the airplane's critical angle of attack and an aerodynamic stall and loss of control. Contributing to

the accident was the student pilot's failure to maintain runway alignment on approach.

Findings

Personnel issues	Delayed action - Instructor/check pilot
Aircraft	Angle of attack - Capability exceeded
Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot

Factual Information

History of Flight

Approach-VFR pattern final	Attempted remediation/recovery
Approach-VFR go-around	Loss of control in flight (Defining event)
Landing-flare/touchdown	Runway excursion

On May 26, 2017, about 2015 Pacific daylight time, a Cessna 175, N6832D, sustained substantial damage after it veered from the runway and impacted trees at San Gabriel Valley Airport (EMT), El Monte, California. The airplane was registered to a private party and operated by the pilot as a 14 *Code of Federal Regulations* Part 91 local instructional flight. The certified flight instructor (CFI), student pilot receiving instruction and passenger sustained minor injuries. The flight departed EMT, about 1900. Visual meteorological conditions prevailed and no flight plan had been filed.

In written statements, it was reported that the flight had successfully completed multiple touch and go landings prior to the accident. On the eighth landing, with the student pilot at the controls, just before touchdown, the airplane drifted to the right of the runway. As the airplane touched down, the CFI applied full left rudder input. The nose of the airplane yawed to the right. The student pilot applied full power and the airplane became airborne again with the stall horn briefly sounding. The flight instructor pushed the nose down, but the control had no travel. The airplane banked to the left and right as the flight instructor continued to try and regain control. The airplane subsequently settled back to the ground and impacted a drainage channel and trees. The airplane sustained substantial damage to the wings, fuselage, and firewall.

After the wreckage was recovered, the flight control system was examined. Aileron control cable continuity was established from the control yokes to the left and right aileron bell cranks. The aileron control chains remained on the yoke sprockets and the interconnect pulleys operated normally. Flap control cable continuity was established from the manual flap handle to the flap bell cranks. Flap impact witness marks on the left side of the fuselage confirmed the flaps were extended 30° at the time of impact. The elevator push/pull tube remained attached to the base of the control yoke. The cables were continuous to the aft elevator bell crank. The elevator trim tab cables were continuous from the control wheel to the right horizontal stabilizer root area. Rudder control cable continuity was established from the rudder pedals to the rudder horn. The rudder return springs were in place and operated normally.

A review of the aircraft maintenance logbook indicated that during the last annual inspection, which was accomplished on May 18, 2017, all inspection panels were opened and all pulleys, rod ends and hinges were lubed.

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	37, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	September 15, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2560 hours (Total, all aircraft), 450 hours (Total, this make and model), 2504 hours (Pilot In Command, all aircraft), 85 hours (Last 90 days, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	42, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	January 30, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	59 hours (Total, all aircraft), 59 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft)		

Passenger Information

Certificate:		Age:	14, Male
Airplane Rating(s):		Seat Occupied:	Rear
Other Aircraft Rating(s):		Restraint Used:	Lap only
Instrument Rating(s):		Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N6832D
Model/Series:	175 UNDESIGNAT	Aircraft Category:	Airplane
Year of Manufacture:	1959	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	55751
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 18, 2017 Annual	Certified Max Gross Wt.:	2348 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-360-A1A
Registered Owner:	On file	Rated Power:	145 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	KPOC,1011 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	03:47 Local	Direction from Accident Site:	87°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	15°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	El Monte, CA (EMT)	Type of Flight Plan Filed:	None
Destination:	El Monte, CA (EMT)	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	SAN GABRIEL VALLEY EMT	Runway Surface Type:	Asphalt
Airport Elevation:	295 ft msl	Runway Surface Condition:	Dry
Runway Used:	19	IFR Approach:	None
Runway Length/Width:	3995 ft / 75 ft	VFR Approach/Landing:	Touch and go

Wreckage and Impact Information

Crew Injuries:	2 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Minor	Latitude, Longitude:	34.088611,-118.033889(est)

Administrative Information

Investigator In Charge (IIC):	Jones, Patrick
Additional Participating Persons:	Steve Sonneson; Federal Aviation Administration; Lawndale, CA Peter J Basile; Textron Aviation; Wichita, KS
Original Publish Date:	July 5, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=95256

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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](#).