



Aviation Investigation Final Report

Location:	RICHLAND, Missouri	Accident Number:	WPR18LA255
Date & Time:	September 4, 2018, 12:26 Local	Registration:	N8028F
Aircraft:	Cessna 150	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor and student pilot were performing touch-and-go takeoffs and landings on runway 14. The instructor stated that the second touch-and-go “went bad,” but he could not remember the events of the accident. The student pilot did not provide a statement. The recorded weather conditions at a nearby airport about the time of the accident included wind from 160° at 17 knots with gusts to 23 knots, resulting in a 7-knot right crosswind component for the landing runway.

The airplane came to rest inverted about 1,800 ft down the 3,000-ft-long runway. The wing flaps were in the fully extended position, and examination of the flight controls revealed no anomalies. The runway displayed impact markings consistent with contact from the left wing about 1,700 ft down the runway and to the right of the runway centerline. The circumstances of the accident are consistent with a loss of directional control during a touch-and-go landing in gusting crosswind conditions.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A loss of directional control during a touch-and-go landing in gusting crosswind conditions.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Not attained/maintained
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Takeoff	Runway excursion
Takeoff	Nose over/nose down

On September 4, 2018, about 1226 central daylight time, a Cessna 150F airplane, N8028F, was substantially damaged when it was involved in an accident near Richland, Missouri. The flight instructor was seriously injured, and the student pilot sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

The instructor reported that he and the student pilot were performing touch-and-go practice takeoffs and landings on runway 14. He stated that the second touch-and-go “went bad” and that he could not recall what had happened.

Examination of the accident site by a Federal Aviation Administration (FAA) inspector revealed impact marks on the runway surface consistent with the nose landing gear and a rotating propeller. According to the inspector, the airplane exited the left side of runway 14, about 1,800 ft from the approach end. The airplane came to rest inverted about 25 ft from the runway with substantial damage to the wings and vertical stabilizer. The flaps were found in the fully extended position. Control continuity was established after the airplane was removed from the accident site.

The 1156 automated weather observation at Waynesville-St. Robert Regional Airport (TBN), Fort Leonard Wood, Missouri, about 17 miles to the southeast, included wind from 160° at 17 knots (kts) gusting to 23 kts, 10 miles visibility, and clear skies. The landing runway heading was 140° magnetic, which resulted in a 7-kt right crosswind component.

According to the airplane’s owner’s manual:

Flap Settings

Normal and obstacle clearance take-offs are performed with flaps up. The use of 10-degrees flaps will shorten the ground run approximately 10%, but this advantage is lost in the climb to a 50 ft obstacle. Therefore, the use of 10-degrees flap is reserved for minimum ground runs or for take-off from soft or rough fields with no obstacles ahead...Flap deflections of 30-degrees or 40-degrees are not recommended at any time for take-off.

Crosswind Take-offs

Take-offs into strong crosswinds normally are performed with the minimum flap setting necessary for the field length, to minimize the drift angle immediately after take-off. The airplane is accelerated to a speed slightly higher than normal, then pulled off abruptly to prevent possible settling back to the runway while drifting. When clear of the ground, make a coordinated turn into the wind to correct for drift.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	78, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	BasicMed With waivers/limitations	Last FAA Medical Exam:	May 26, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	7000 hours (Total, all aircraft)		

Passenger Information

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
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:	N8028F
Model/Series:	150 F	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	15064128
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:		Certified Max Gross Wt.:	1601 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:		Engine Model/Series:	O-200 SERIES
Registered Owner:		Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KTBN, 1159 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	17:56 Local	Direction from Accident Site:	121°
Lowest Cloud Condition:	Few / 4000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	17 knots / 23 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	30°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Leonard Wood, MO (TBN)	Type of Flight Plan Filed:	None
Destination:	RICHLAND, MO (MO1)	Type of Clearance:	None
Departure Time:	12:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	Richland Muni MO1	Runway Surface Type:	Asphalt
Airport Elevation:	1110 ft msl	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	3000 ft / 60 ft	VFR Approach/Landing:	Touch and go

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	37.874443,-92.406944(est)

Administrative Information

Investigator In Charge (IIC):	Swick, Andrew	
Additional Participating Persons:	Scott L Davis; FAA-FSDO; St. Ann, MO	
Original Publish Date:	March 16, 2022	Investigation Class: 3
Note:	The NTSB did not travel to the scene of this accident.	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98260	

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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](#).