



Aviation Investigation Final Report

Location:	ENGLEWOOD, Colorado	Accident Number:	FTW97LA273
Date & Time:	July 18, 1997, 07:15 Local	Registration:	N5351N
Aircraft:	Christen Industries 2B	PITTS S-	Aircraft Damage: Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

During a touch and go landing at an intermediate airport, the flight instructor said he encountered a strong crosswind and performed a bounced landing. During the ensuing takeoff, the aircraft struck the precision approach path indicator (PAPI) control box located beside the runway. The instructor flew the aircraft back to the departure airport and during landing the left main landing gear collapsed. Subsequent inspection revealed damage to the landing gear, left lower wing, and the bottom of the fuselage. Recorded wind at the time of the encounter with the PAPI constituted a left quartering tailwind at 3.5 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Inaccurate compensation for wind conditions and improper recovery from a bounced landing by the CFI pilot in command. A factor was a crosswind.

Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. OBJECT - APPROACH LIGHT/NAVAID
2. (F) WEATHER CONDITION - CROSSWIND

3. (C) COMPENSATION FOR WIND CONDITIONS - INACCURATE - PILOT IN COMMAND(CFI)
4. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - PILOT IN COMMAND(CFI)

Factual Information

On July 18, 1997, at 0715 mountain daylight time, a Christen Industries PITT S-2B, N5351N, collided with the precision approach path indicator (PAPI) at Front Range Airport, Aurora, Colorado, while conducting touch and go landings. The flight instructor and private pilot student were not injured and the aircraft sustained substantial damage. Visual meteorological conditions prevailed for this instructional flight operating under Title 14 CFR Part 91 and no flight plan was filed. The flight departed Centennial Airport, Englewood, Colorado, at 0600 and following the collision landed at Centennial Airport at 0730.

According to the flight instructor, after recovering from a bounced landing, he encountered a strong crosswind and the aircraft struck an airport light. Following this encounter, he said he flew the aircraft back to his point of departure (Centennial Airport). On landing, the left main landing gear collapsed.

Examination of the aircraft by the NTSB Investigator In Charge, revealed damage to the left main landing gear, lower portion of the left lower wing, and damage to the lower surface of the fuselage.

According to the manager of Front Range Airport, the PAPI is located on the west side of runway 35 approximately 1,000 feet down the runway from the approach end. He said the control box was totally destroyed. Recorded wind at the time of the encounter was from 240 degrees magnetic at 8 knots. When landing on runway 35 a quartering tailwind from the west at 3.5 knots was present.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	47, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	April 22, 1997
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	20000 hours (Total, all aircraft), 200 hours (Total, this make and model), 16000 hours (Pilot In Command, all aircraft), 160 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Christen Industries	Registration:	N5351N
Model/Series:	PITTS S-2B PITTS S-2B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Aerobatic; Normal	Serial Number:	5064
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	January 3, 1997 Annual	Certified Max Gross Wt.:	1650 lbs
Time Since Last Inspection:	115 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	400 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	AEIO540
Registered Owner:	HIGH 'G' ENTERPRISES LLC	Rated Power:	260 Horsepower
Operator:	TERRANCE P. SONDAY	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	DIA ,5431 ft msl	Distance from Accident Site:	330 Nautical Miles
Observation Time:	06:53 Local	Direction from Accident Site:	7°
Lowest Cloud Condition:	Scattered / 12000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	22°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, CO (APA)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	06:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	FRONT RANGE FTG	Runway Surface Type:	Asphalt
Airport Elevation:	5500 ft msl	Runway Surface Condition:	Dry
Runway Used:	35	IFR Approach:	None
Runway Length/Width:	8000 ft / 100 ft	VFR Approach/Landing:	Touch and go

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.640903,-104.990722(est)

Administrative Information

Investigator In Charge (IIC):	Wiemeyer, Norman
Additional Participating Persons:	LARRY ROCKHOLD; DENVER , CO
Original Publish Date:	October 16, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=20285

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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](#).