



# Aviation Investigation Final Report

<b>Location:</b>	Valdosta, Georgia	<b>Accident Number:</b>	ATL01LA096
<b>Date &amp; Time:</b>	August 27, 2001, 11:45 Local	<b>Registration:</b>	N758BW
<b>Aircraft:</b>	Cessna R172K	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The certificated flight instructor and dual student were conducting a simulated emergency landing immediately after takeoff. According to the flight instructor, the flight instructor briefed the dual student on the procedures and stated that the flight instructor would maintain priority on the controls with the dual student to follow. At 150 feet AGL, the instructor reduced the throttle to idle and pitched the airplane nose-low to maintain airspeed. The student pilot reported actively pulling back on the yoke at 50 feet AGL. As the flight instructor attempted the flare, the airplane struck the runway and sustained substantial damage to the propeller, nose gear, left main landing gear, firewall, floor, and bottom of the fuselage back to the baggage door.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight instructor's improper flare of the airplane, which resulted in a hard landing. Factors were the dual student's failure to relinquish control of the airplane and the dual student's interference on the flight controls.

## Findings

Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) FLARE - IMPROPER - PILOT IN COMMAND(CFI)
2. (F) CONTROL INTERFERENCE - ENCOUNTERED - PILOT IN COMMAND(CFI)
3. (F) RELINQUISHING OF CONTROL - NOT COMPLIED WITH - DUAL STUDENT

## Factual Information

On August 27, 2001, at 1145 eastern daylight time, a Cessna R172K, N758BW, registered to Valdosta Flying Service, Inc., of Valdosta, Georgia, landed hard on the runway during a simulated emergency landing at Valdosta Regional Airport in Valdosta, Georgia. The instructional flight was conducted under the provisions of Title 14 CFR Part 91. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed. The airplane sustained substantial damage, and neither the certificated flight instructor nor the dual student reported injuries. The flight first departed Valdosta at 1115 and conducted several approaches and emergency procedures in the traffic pattern.

Prior to the accident, the flight instructor briefed the dual student on the proper procedures for a short-field landing, as well as for recovery from an engine failure on takeoff. The flight instructor and dual student completed a short-field landing to a complete stop and informed the tower their intentions to execute a takeoff with a simulated emergency landing to immediately follow. The flight instructor stated the student agreed the instructor "would maintain priority on the controls," and the student would follow. The instructor set the flaps to 10 degrees for takeoff and climbed the airplane at 60 knots. At 150 feet above ground level (AGL), the flight instructor announced a power reduction and reduced the throttle to idle to simulate an engine failure. The flight instructor and student reported pitching the airplane in a nose-low attitude to maintain airspeed. The student stated, "We nosed the plane over into a dive, and I experienced 0 g's. We were then at a dive at the runway and pulled back on the yoke at approximately 50 feet of altitude. I did not notice the aircraft come out of the dive like I expected it to, so I pulled back on the yoke some more (I was now actively back on the controls with [the flight instructor])." During the attempted flare, the airplane struck the runway. The dual student stated the airplane "impacted the runway in a nose-forward attitude." The flight instructor stated "the left main touched first, buckling slightly then shifted forward, collapsing the nose gear."

Examination of the airplane revealed no evidence of mechanical malfunction. Damage sustained in the accident included: Approximately 12 inches of the propeller tip was curled back toward the rear of the airplane. The nose gear wheel was displaced upward under the engine and right of center, and the top section of the nose strut was displaced upward against the firewall bottom, and the firewall was damaged. The nose wheel pant was found in pieces on the runway. The fuselage bottom was damaged immediately aft of the firewall on the bottom and both sides back to the baggage door. The rudder pedals in the area of the right side forward floor were pushed in toward the cabin. The center console under the instrument panel was buckled, and a piece of the support structure was protruding through the plastic by the cowl flap indicator and angled toward the right side. The forward cabin side panels and floor showed evidence of stress, and the left door of the airplane could not be closed. The left main gear was bent, and the wheel assembly was angled inward.

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	33, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical—no waivers/lim.	<b>Last FAA Medical Exam:</b>	April 24, 2001
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1274 hours (Total, all aircraft), 105 hours (Total, this make and model), 753 hours (Pilot In Command, all aircraft), 85 hours (Last 90 days, all aircraft), 42 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Student pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	25, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical—no waivers/lim.	<b>Last FAA Medical Exam:</b>	August 13, 2001
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	14 hours (Total, all aircraft), 14 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N758BW
<b>Model/Series:</b>	R172K	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	R1722974
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 13, 2001 Annual	<b>Certified Max Gross Wt.:</b>	2300 lbs
<b>Time Since Last Inspection:</b>	36 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1166 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-360-KB
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	195 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KVLD, 203 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	11:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 20000 ft AGL	<b>Visibility</b>	4 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	230°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	30°C / 23°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Valdosta, GA (KVLD)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Valdosta, GA (KVLD)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	11:44 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Valdosta Regional Airport VLD	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	203 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	04	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5598 ft / 100 ft	<b>VFR Approach/Landing:</b>	Simulated forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	30.840492,-83.270385(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Powell, Phillip
<b>Additional Participating Persons:</b>	Bob West; FAA Atlanta FSDO-11; College Park, GA
<b>Original Publish Date:</b>	June 3, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=53237">https://data.ntsb.gov/Docket?ProjectID=53237</a>

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](#).