



## National Transportation Safety Board Aviation Accident Factual Report

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<b>Location:</b>	Cahokia, IL	<b>Accident Number:</b>	CHI01LA079
<b>Date &amp; Time:</b>	02/02/2001, 1608 CST	<b>Registration:</b>	N4249C
<b>Aircraft:</b>	Cessna 310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None

**Flight Conducted Under:** Part 91: General Aviation - Instructional

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On February 2, 2001, at 1608 central standard time, a Cessna 310R, N4249C, piloted by a certified flight instructor (CFI), sustained substantial damage when the landing gear collapsed while landing on runway 12R (6,997 feet by 100 feet, dry/asphalt) at the St. Louis Downtown Airport (CPS), Cahokia, Illinois. Visual meteorological conditions prevailed at the time of the accident. The instructional flight was operating under the provisions of 14 CFR Part 91 and was not on a flight plan. The pilot and the dual student were not injured. The local flight departed CPS at 1530 and was returning to CPS at the time of the accident.

According to the CFI's written statement, after completing training maneuvers in the practice area the CFI decided to return to CPS and conduct touch-and-go landings. The CFI reported that when they extended the landing gear the three green landing gear position lights illuminated. The CFI stated that they attempted a normal landing and, "Upon touch down the aircraft continued to sink on the left side indicating a problem." The CFI reported that the dual student aborted the landing and they departed the traffic pattern in order to assess the problem. The CFI stated that he cycled the landing gear and the three green landing gear position lights illuminated when the landing gear were extended. The CFI reported that he performed a fly-by past the control tower and the air traffic control (ATC) personnel indicated that all three landing gear were extended. The CFI stated that he attempted another landing and the airplane continued to drop on the left side subsequent to the touchdown. The CFI reported that he aborted the landing and made the decision to attempt a gear-up landing on the next landing attempt. The CFI stated that on the next landing approach the decision was made to go-around and during the go-around the ATC personnel informed him that his left landing gear was "[hanging] by itself". The CFI reported that he then decided to attempt a landing with the landing gear extended. The CFI stated that, "Upon touch down the left gear collapsed as it did the other two times I tried to keep [the airplane] on the right gear as long as possible. As we slowed the left wing and prop touched the ground and pulled us off the left side of [runway] 12R hitting a runway light."

A representative of the Federal Aviation Administration performed a post-accident inspection of the airplane and its landing gear system. No anomalies were found with the landing gear system that could be associated with a pre-impact condition. All fractured portions of the landing gear system had signatures consistent with overload failure.

The accident airplane was involved with two previous occurrences in which the left landing gear had collapsed. The first was on June 27, 1998, and the cause of the gear collapse was undetermined. The second occurrence was on May 15, 2000, and was attributed to the failure of a through-bolt in the gear retraction linkage. The accident flight was the second flight since the maintenance release for the damages that were incurred during the May 15, 2000, accident. The first flight was a maintenance test flight and no anomalies were noted during the flight.

## Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	24, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	01/25/2001
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	03/31/2000
<b>Flight Time:</b>	1356 hours (Total, all aircraft), 15 hours (Total, this make and model), 1271 hours (Pilot In Command, all aircraft), 55 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Student Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	24, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	12/05/2000
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	11/21/2000
<b>Flight Time:</b>	230 hours (Total, all aircraft), 0 hours (Total, this make and model), 155 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4249C
Model/Series:	310R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	R1380
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	01/25/2001, Continuous Airworthiness	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:	2.3 Hours	Engines:	2 Reciprocating
Airframe Total Time:	7019.6 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-520-M
Registered Owner:	Parks College of Saint Louis University	Rated Power:	285 hp
Operator:	Parks College of Saint Louis University	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	CPS, 413 ft msl	Distance from Accident Site:	
Observation Time:	1553 CST	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.37 inches Hg	Temperature/Dew Point:	-6° C / -17° C
Precipitation and Obscuration:			
Departure Point:	Cahokia, IL (CPS)	Type of Flight Plan Filed:	None
Destination:	Cahokia, IL (CPS)	Type of Clearance:	VFR
Departure Time:	1530 CST	Type of Airspace:	Class D

## Airport Information

Airport:	St. Louis Downtown Airport (CPS)	Runway Surface Type:	Asphalt
Airport Elevation:	413 ft	Runway Surface Condition:	Dry
Runway Used:	12R	IFR Approach:	None
Runway Length/Width:	6997 ft / 100 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<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>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Andrew T Fox
<b>Additional Participating Persons:</b>	Grant F Gillian; Federal Aviation Administration - St. Louis FSDO; St. Ann, MO
<b>Investigation Docket:</b>	NTSB accident and incident docket serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .