



# Aviation Investigation Factual Report

<b>Location:</b>	Cahokia, Illinois	<b>Accident Number:</b>	CHI01LA079
<b>Date &amp; Time:</b>	February 2, 2001, 16:08 Local	<b>Registration:</b>	N4249C
<b>Aircraft:</b>	Cessna 310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Factual Information

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>	Commercial; Flight instructor	<b>Age:</b>	24, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<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>	January 25, 2001
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	March 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>	
<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>	December 5, 2000
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	November 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

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N4249C
<b>Model/Series:</b>	310R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	R1380
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	January 25, 2001 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	5500 lbs
<b>Time Since Last Inspection:</b>	2.3 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	7019.6 Hrs at time of accident	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-M
<b>Registered Owner:</b>	Parks College of Saint Louis University	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>		<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>	CPS, 413 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	15:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 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>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.37 inches Hg	<b>Temperature/Dew Point:</b>	-6°C / -17°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Cahokia, IL (CPS )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Cahokia, IL (CPS )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	15:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	St. Louis Downtown Airport CPS	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	413 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	12R	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	6997 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## 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>	38.570663,-90.169616(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Fox, Andrew
<b>Additional Participating Persons:</b>	Grant F Gillian; Federal Aviation Administration - St. Louis FSDO; St. Ann, MO
<b>Report Date:</b>	April 30, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=51707">https://data.nts.gov/Docket?ProjectID=51707</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](#).