



# Aviation Investigation Final Report

<b>Location:</b>	BUFFALO, New York	<b>Accident Number:</b>	NYC95LA165
<b>Date &amp; Time:</b>	July 19, 1995, 02:00 Local	<b>Registration:</b>	N310JM
<b>Aircraft:</b>	CESSNA 310Q	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The airplane initially touched down on runway 32 with approximately 3981 feet remaining. Runway 32 was 5376 feet long and 150 feet wide. The pilot stated that initial contact with the runway was 'a little harder than usual' and the airplane bounced. He added power, and the airplane began to 'float.' When he reduced power, the right wing struck the ground. The investigation revealed that during the landing sequence, the right main landing gear collapsed. The pilot had stated to FAA inspector(s) that during initial touchdown, he was 'glad this flight was over, he was getting tired.' According to the pilot, he had started work at approximately 1400 and had flown to Albany at about 1830.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot misjudged the flare, resulting in a hard landing and subsequent collapse of the right main landing gear. Pilot fatigue was a related factor.

## Findings

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

- Findings
1. (C) FLARE - MISJUDGED - PILOT IN COMMAND
  2. (F) FATIGUE - PILOT IN COMMAND

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Occurrence #2: MAIN GEAR COLLAPSED  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings  
3. LANDING GEAR,MAIN GEAR - OVERLOAD

## Factual Information

On July 19, 1995, about 0200 eastern daylight time, a Cessna 310Q, N310JM, sustained substantial damage during a landing at the Buffalo International Airport (BUF), Buffalo, New York. The commercial pilot was not injured. Visual meteorological conditions prevailed and an IFR flight plan had been filed. The business flight was being conducted under 14 CFR Part 91.

According to the FAA, the airplane initially touched down on runway 32, approximately 50 feet beyond the intersection of runways 23 and 32 (with approximately 3981 feet remaining). Runway 32 was 5,376 feet long and 150 feet wide.

The pilot stated to the FAA Inspector that his:

...initial contact with the runway was "a little harder than usual" and he bounced and noticed that something did not feel right. He added power and the aircraft began to "float." When he reduced power he felt the right wing going down, and around taxiway Q...the right wing touched the ground...he...remembered saying to himself during initial touchdown that he was glad this flight was over, he was getting tired. He had started work at approximately 2:00PM (1400) and had flown to Albany at around 6:30PM (1830).

During the landing sequence, the right main landing gear collapsed. The investigation revealed that there were 3 gouges in the runway pavement where the "right prop" first contacted the pavement abeam the intersection of runway 32 and taxiway Q. The airplane continued on the runway for approximately 1500 feet, departing the right side of the runway before coming to rest in the grass.

At the time of the accident, the pilot had 3,407.6 total flight hours, 1,236.6 night flight hours and 243 flight hours in this make and model airplane.

The BUF 0211 weather was; 8,500 scattered, 10,000 broken, visibility 15 miles, temperature 68 degrees F, dew point 57 degrees F, wind 290 degrees, 7 knots, altimeter 29.87 inches Hg.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	63, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	October 15, 1993
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	3408 hours (Total, all aircraft), 243 hours (Total, this make and model), 3339 hours (Pilot In Command, all aircraft), 41 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N310JM
<b>Model/Series:</b>	310Q 310Q	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1011
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	November 8, 1994 Annual	<b>Certified Max Gross Wt.:</b>	5300 lbs
<b>Time Since Last Inspection:</b>	76 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	3235 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-470-VO
<b>Registered Owner:</b>	JOHN DAVIS	<b>Rated Power:</b>	470 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	DAVIS AVIATION INC.	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/bright
<b>Observation Facility, Elevation:</b>	BUF ,724 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	02:11 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 8500 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	Broken / 10000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	290°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	20°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	ALBANY , NY (ALB )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	(BUF )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	00:45 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	BUFFALO INTERNATIONAL BUF	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	724 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	32	<b>IFR Approach:</b>	Visual
<b>Runway Length/Width:</b>	5376 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 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>	1 None	<b>Latitude, Longitude:</b>	42.8996,-78.889434(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Yurman, Alan
<b>Additional Participating Persons:</b>	RALPH DINWIDDIE; ROCHESTER , NY
<b>Original Publish Date:</b>	February 27, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=39007">https://data.nts.gov/Docket?ProjectID=39007</a>

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