Aviation Investigation Final Report

Location:	AUBURN, Alabama	**Accident Number:**	MIA96LA076
Date & Time:	February 8, 1996, 17:20 Local	**Registration:**	N2201F
Aircraft:	Cessna 310L	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

During the landing roll, at about 40 knots, the left main landing gear collapsed. Examination of the landing gear showed that the side brace lock end fitting had failed allowing the gear to collapse. Metallurgical examination of the end fitting showed it failed due to overstress.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: an overstress failure of the left main gear side brace lock end fitting for undetermined reasons.

Findings

Occurrence #1: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings
1. (C) LANDING GEAR,GEAR LOCKING MECHANISM - OVERLOAD
2. LANDING GEAR,MAIN GEAR - COLLAPSED

Factual Information

On February 8, 1996, about 1720 central standard time, a Cessna 310L, N2201F, registered to Air Carriers Inc., experienced collapse of the left main landing gear during landing roll at the Auburn Opelika Airport, Auburn, Alabama, while on a 14 CFR Part 135 air taxi flight. Visual meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed. The commercial-rated pilot was not injured and the airplane was substantially damaged. The flight had originated from Jacksonville, Florida, the same day about 1545.

The pilot stated that during landing on runway 18, the aircraft was rolling on all three landing gear and had slowed to 40 knots when the left main landing gear collapsed. The left wing tip tank struck the runway and the aircraft rotated around 160 degrees from runway heading, where it came to rest.

Postcrash examination of the aircraft was performed by FAA inspectors and company maintenance personnel. The left main gear side brace lock end fitting had failed, allowing the gear to collapse. Metallurgical examination of the failed end fitting was performed by the NTSB Material Laboratory, Washington, D.C. The end fitting failed due to overstress. See attached NTSB Metallurgist's Factual Report.

Pilot Information

Certificate:	Commercial	**Age:**	27,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	July 18, 1995
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	2765 hours (Total, all aircraft), 465 hours (Total, this make and model), 2587 hours (Pilot In Command, all aircraft), 226 hours (Last 90 days, all aircraft), 78 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N2201F
Model/Series:	310L 310L	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	310L0001
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	February 6, 1996 100 hour	**Certified Max Gross Wt.:**	5200 lbs
Time Since Last Inspection:	11 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	6555 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-420-VO
Registered Owner:	AIR CARRIERS INC.	**Rated Power:**	260 Horsepower
Operator:		**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	DKBA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	AUO ,776 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	17:36 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	200°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	17°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	JACKSONVILLE , FL (CRG)	**Type of Flight Plan Filed:**	IFR
Destination:	(AUO)	**Type of Clearance:**	IFR
Departure Time:	15:45 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	AUBURN-OPELIKA AUO	**Runway Surface Type:**	Asphalt
Airport Elevation:	776 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	3933 ft / 75 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	32.589084,-85.479698(est)

Administrative Information

Investigator In Charge (IIC):	Kennedy, Jeffrey
Additional Participating Persons:	GARY L SOLDWISCH; BIRMINGHAM , AL
Original Publish Date:	October 22, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=37979