



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	FORT LAUDERDALE, FL	<b>Accident Number:</b>	MIA95LA016
<b>Date &amp; Time:</b>	11/01/1994, 1310 EST	<b>Registration:</b>	N5715C
<b>Aircraft:</b>	CESSNA 402C	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None

**Flight Conducted Under:** Part 135: Air Taxi & Commuter - Scheduled

---

## Analysis

The left main landing gear collapsed on landing rollout. Examination of the landing gear by the FAA and company maintenance personnel revealed a failure of left landing gear upper barrel and trunion assembly. Further examination of the components by the NTSB laboratory revealed fractures representative of overstress separations. There was no evidence of fatigue or other type of preexisting cracking. Review of aircraft logbooks revealed no recorded history of hard landings, or previous landing gear damage.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the left main landing gear upper barrel and trunion assembly due to overstress separations, resulting in the collapse of the left main landing gear on landing rollout.

## Findings

---

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

### Findings

1. (C) LANDING GEAR,MAIN GEAR STRUT - FAILURE,TOTAL
2. LANDING GEAR,MAIN GEAR STRUT - OVERLOAD
3. LANDING GEAR - COLLAPSED

## Factual Information

On November 1, 1994, about 1310 eastern standard time, a Cessna 402C, N5715C, registered to Airways International Inc., operating as a 14 CFR Part 135 scheduled domestic passenger flight, experienced a collapse of the left main landing gear on landing rollout at the Fort Lauderdale-Hollywood International Airport, and collided with the runway lighting system. The airplane sustained substantial damage. The airline transport-rated pilot and two passengers reported no injuries. Visual meteorological conditions prevailed and an instrument flight plan was filed. The flight originated from Miami International Airport, 25 minutes before the accident.

Examination of the landing gear by the FAA and Airways International Inc, maintenance personnel revealed a failure of the left main landing gear trunnion. Review of airplane logbooks revealed no recorded history of hard landings, or previous landing gear damage.

Examination of pieces from the left main landing gear upper barrel and trunion assembly was performed by the NTSB materials laboratory. The examination revealed the fractures were representative of overstress separations. No evidence of fatigue or other type of preexisting cracking was found. (For additional information see NTSB Metallurgist's Factual Report No. 95-17).

Components retained for further testing were released to Mr. Jagdesh Remkhalawam, Aero Parts International, Miami, Florida, on December 13, 1994.

## Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	35, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	03/29/1994
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	5344 hours (Total, all aircraft), 2150 hours (Total, this make and model), 4968 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 49 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N5715C
Model/Series:	402C 402C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	402C0024
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	11/11/1994, Continuous Airworthiness	Certified Max Gross Wt.:	6850 lbs
Time Since Last Inspection:	2 Hours	Engines:	2 Reciprocating
Airframe Total Time:	9831 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	TSIO-520-VB
Registered Owner:	AIRWAYS INTERNATIONAL	Rated Power:	325 hp
Operator:	AIRWAYS INTERNATIONAL	Operating Certificate(s) Held:	Commuter Air Carrier (135)
Operator Does Business As:		Operator Designator Code:	FAHA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FLL, 11 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1327 EST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	2 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	32° C / 22° C
Precipitation and Obscuration:			
Departure Point:	MIAMI, FL (MIA)	Type of Flight Plan Filed:	IFR
Destination:	, FL (FLL)	Type of Clearance:	IFR
Departure Time:	1245 EST	Type of Airspace:	Class D; Class E

## Airport Information

Airport:	FORT LAUDERDALE INT (FLL)	Runway Surface Type:	Asphalt
Airport Elevation:	10 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	5270 ft / 100 ft	VFR Approach/Landing:	Traffic Pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	CARROL A SMITH	<b>Report Date:</b>	05/04/1995
<b>Additional Participating Persons:</b>	EARNEST J DAVIS; FORT LAUDERDALE, FL		
<b>Publish Date:</b>			
<b>Investigation Docket:</b>	NTSB accident and incident dockets 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> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).