



# National Transportation Safety Board Aviation Accident Factual Report

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<b>Location:</b>	RALEIGH, NC	<b>Accident Number:</b>	ATL96LA073
<b>Date &amp; Time:</b>	04/01/1996, 1004 EST	<b>Registration:</b>	N999TF
<b>Aircraft:</b>	Canadair CL-600S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	9 None
<b>Flight Conducted Under:</b>	Part 135: Air Taxi & Commuter - Non-scheduled		

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On April 1, 1996, about 1004 eastern standard time, Canadair CL-600-1A11, N999TF, nose landing gear collapsed on landing at the Raleigh-Durham Airport, Raleigh, North Carolina. The aircraft was being operated by Pal-Waukee Aviation under the provisions of 14 CFR Part 135 and instrument flight rules. Instrument meteorological conditions existed at the time of the accident, and an instrument flight rules flight plan was in effect. The airline transport pilot, his co-pilot, the cabin attendant, and the six passengers were not injured; the aircraft was substantially damaged. The flight departed Milwaukee, Wisconsin at 0830 the same day.

The pilot stated that when the landing gear was extended, the landing gear position indicating system presented conflicting information regarding the position of the nose landing gear. The landing gear was then raised, and the indicator lights were all extinguished. The gear was again extended. The main gear indicator lights were illuminated, indicating that the main gear was down, but the nose gear light was extinguished. The light in the gear handle was off, indicating that the system was functioning properly. The pilot did not use the emergency landing gear extension system. The aircraft was landed and the nose gear collapsed. The pilot stated that the clouds and visibility precluded any observation of the landing gear by airport tower personnel.

Post accident examination of the nose gear selector valve revealed an intermittently inoperative extend solenoid valve. According to the failure analysis report, the solenoid valve most likely experienced moisture entry. The manufacturer reported that the selector valve was repaired with an upgraded solenoid to preclude recurrence of the failure.

## Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Multi-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 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	03/26/1996
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	6500 hours (Total, all aircraft), 1014 hours (Total, this make and model), 3750 hours (Pilot In Command, all aircraft), 155 hours (Last 90 days, all aircraft), 53 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Canadair	<b>Registration:</b>	N999TF
<b>Model/Series:</b>	CL-600S CL-600S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	1042
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	13
<b>Date/Type of Last Inspection:</b>	01/29/1996, AAIP	<b>Certified Max Gross Wt.:</b>	41250 lbs
<b>Time Since Last Inspection:</b>	46 Hours	<b>Engines:</b>	2 Turbo Fan
<b>Airframe Total Time:</b>	3395 Hours	<b>Engine Manufacturer:</b>	ALLIED SIGNAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	ALF502L2C
<b>Registered Owner:</b>	U.S. BANCORP LEASING & FINANC.	<b>Rated Power:</b>	7500 hp
<b>Operator:</b>	PAL-WAUKEE AVIATION	<b>Operating Certificate(s) Held:</b>	On-demand Air Taxi (135)
<b>Operator Does Business As:</b>	PRIESTER AVIATION	<b>Operator Designator Code:</b>	PRIA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RDU, 437 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1022 EST	Direction from Accident Site:	360°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	3 Miles
Lowest Ceiling:	Overcast / 300 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	11° C / 12° C
Precipitation and Obscuration:			
Departure Point:	MILWAUKEE, WI (MKE)	Type of Flight Plan Filed:	IFR
Destination:	(RDU)	Type of Clearance:	IFR
Departure Time:	0830 EST	Type of Airspace:	Class C

## Airport Information

Airport:	RALEIGH-DURHAM (RDU)	Runway Surface Type:	Concrete
Airport Elevation:	436 ft	Runway Surface Condition:	Dry
Runway Used:	23R	IFR Approach:	ILS
Runway Length/Width:	10000 ft / 150 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	6 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	9 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	PRESTON E HICKS
Additional Participating Persons:	DENNIS SCARFAEO; NC
Investigation Docket:	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> .