



National Transportation Safety Board Aviation Accident Data Summary

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

Analysis

During an instrument landing system (ILS) approach the airline transport pilot noticed a discrepancy in the landing gear indicators. He raised the landing gear and lowered it again. The main landing gear indicator lights were illuminated, indicating that the main gear was extended and locked, 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. Subsequent examination revealed an intermittently operating extend solenoid in the nose gear selector valve.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the flight crew's inadequate emergency procedure in that they did not manually extend the landing gear, as specified in the airplane flight manual. A factor relating to the accident was: the intermittent operation of the extend solenoid in the nose gear selector valve.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH

Findings

1. (F) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - MALFUNCTION
2. LANDING GEAR,NOSE GEAR - NOT ENGAGED
3. (C) GEAR DOWN AND LOCKED - NOT ATTAINED - FLIGHTCREW
4. (C) EMERGENCY PROCEDURE - NOT FOLLOWED - FLIGHTCREW

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

Pilot Information

Certificate:	Airline Transport	Age:	37
Airplane Rating(s):	Multi-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	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

Aircraft Make:	Canadair	Registration:	N999TF
Model/Series:	CL-600S CL-600S	Engines:	2 Turbo Fan
Operator:	PAL-WAUKEE AVIATION	Engine Manufacturer:	ALLIED SIGNAL
Operating Certificate(s) Held:	On-demand Air Taxi (135)	Engine Model/Series:	ALF502L2C
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RDU, 437 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Overcast / 300 ft agl	Wind Speed/Gusts, Direction:	3 knots / , 340°
Temperature:	11°C	Visibility	3 Miles
Precipitation and Obscuration:			
Departure Point:	MILWAUKEE, WI (MKE)	Destination:	(RDU)

Airport Information

Airport:	RALEIGH-DURHAM (RDU)	Runway Surface Type:	Concrete
Runway Used:	23R	Runway Surface Condition:	Dry
Runway Length/Width:	10000 ft / 150 ft		

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
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): PRESTON E HICKS

Adopted Date: 08/29/1997

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 pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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