



Aviation Investigation Final Report

Location:	CHARLESTON, South Carolina	Accident Number:	DCA84AA008
Date & Time:	November 24, 1983, 19:25 Local	Registration:	CFTNJ
Aircraft:	LOCKHEED L-1011	Aircraft Damage:	Minor
Defining Event:		Injuries:	5 Serious, 20 Minor, 136 None
Flight Conducted Under:	Part 129: Foreign		

Analysis

DURING FLT AT FL350, THE FLT CREW NOTED SOME THUNDERSTORMS IN THE VICINITY OF THEIR ROUTE OF FLT & ADVISED THE ATC CONTROLLER THAT THEY MIGHT HAVE TO DETOUR. AFTER TURNING & CLIMBING TO FL370, THEY NOTED 'MODERATE CHOP TO LIGHT TURBULENCE' & SAW A FLASH OF LIGHTNING TO THE NORTH. THE FLT CREW TURNED ON THE SEATBELT SIGN & ANNOUNCED IN FRENCH & ENGLISH FOR OCCUPANTS TO REMAIN SEATED & FASTEN THEIR SEATBELTS. WHILE FLYING IN 'UPPER CLOUD' ABOUT 20 MI DOWNWIND FROM A LINE OF THUNDERSTORMS, THE ACFT ENCOUNTERED SEVERE TURBULENCE. SOME OCCUPANTS WHO WERE NOT PROPERLY RESTRAINED WERE INJURED & SOME WERE HIT BY LOOSE OBJECTS. SERVICE CARTS AS WELL AS OTHER OBJECTS WERE THROWN ABOUT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE - NORMAL

Findings

1. LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - THUNDERSTORM
3. SEAT BELT SIGN - SELECTED - PILOT IN COMMAND
4. PASSENGER BRIEFING - PERFORMED - PILOT IN COMMAND
5. (C) WEATHER CONDITION - TURBULENCE,CLEAR AIR

Factual Information

Pilot Information

Certificate:	Airline transport; Foreign	Age:	50, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1 Unknown	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	22900 hours (Total, all aircraft), 2733 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	LOCKHEED	Registration:	CFTNJ
Model/Series:	L-1011 L-1011	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	193E1067
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	466000 lbs
Time Since Last Inspection:	0 Hrs	Engines:	3 Turbo fan
Airframe Total Time:	26544 Hrs	Engine Manufacturer:	Rolls-Royce
ELT:		Engine Model/Series:	RB-21-22B
Registered Owner:		Rated Power:	
Operator:	AIR CANADA	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	Condition of Light:	Not reported
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PORT OF SPAIN , OF	Type of Flight Plan Filed:	IFR
Destination:	TORONTO,CANADA , OF	Type of Clearance:	IFR
Departure Time:	15:57 Local	Type of Airspace:	Class A

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious, 4 Minor, 10 None	Aircraft Damage:	Minor
Passenger Injuries:	4 Serious, 16 Minor, 126 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 Serious, 20 Minor, 136 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): Mccarthy, Gerald

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=15799>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).