
Nose gear-up landing, Boeing 707-323C, February 22, 1996

Micro-summary: This Boeing 707-323C experienced a loss of hydraulic fluid and, eventually, a landing with the nose gear up.


Event Date: 1996-02-22 at 1618 EST


Investigative Body: National Transportation Safety Board (NTSB), USA


Investigative Body's Web Site: <http://www.nts.gov/>

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		NTSB ID: MIA96IA084		Aircraft Registration Number: N751MA	
		Occurrence Date: 02/22/1996		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place MIAMI		State FL	Zip Code 33159	Local Time 1618	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility: 1		Direction From Airport: 180	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 707-323C		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On February 22, 1996, about 1618 eastern standard time, a Boeing 707-323C, N751MA, registered to Wilmington Trust Company and operated by Millon Air, Inc., landed with the nose gear retracted at Miami International Airport, Miami, Florida, while on a 14 CFR Part 121 nonscheduled international cargo flight. Visual meteorological conditions prevailed at the time and an instrument flight rules flight plan was filed. The aircraft received minor damage and the airline transport-rated captain, first officer, second officer, and extra pilot were not injured. The flight originated from Manaus, Brazil, on the same day about 1040.</p> <p>The flightcrew stated that about 1 hour after departure from Manaus, the flight engineer noticed the utility hydraulic system fluid level was going down. He attempted to isolate the source of the fluid loss, but this was unsuccessful, and all fluid was lost. On approach to Miami, the flight engineer attempted to manually extend the nose landing gear. This was unsuccessful. He then successfully lowered the main landing gear. Further attempts to lower the nose landing gear, with the help of a fourth crewmember and directions from Millon Air personnel on the ground in Miami, were unsuccessful. The flightcrew performed a fly-by of the Miami Air Traffic Control Tower, and controllers confirmed the nose landing gear was retracted and the nose landing gear doors were open. The aircraft was landed with the nose landing gear retracted and the nose landing gear doors open. After landing the flightcrew evacuated the aircraft via the cockpit windows.</p> <p>After the incident, the aircraft was lifted and the nose landing gear was extended by NTSB, FAA, and Millon Air personnel using the normal manual extension system. After the aircraft was moved to a hangar, the nose landing gear was retracted and manually extended four more times, with no evidence of failure or malfunction of the nose landing gear and manual extension system.</p> <p>Postincident testing of the utility hydraulic system indicated the pressure relief valve housing had failed, allowing loss of all hydraulic fluid from the system. Metallurgical examination of the failed pressure relief valve housing was performed by Frank P. Zakar, Materials Engineer, NTSB, Washington, D.C. The housing failed as a result of fatigue cracking which emanated from internal threads of the housing. (See attached Metallurgist's Factual Report)</p> <p>Company records indicated the flight engineer was hired by Millon Air in August 1995. He completed ground training and took an initial aircraft proficiency check on October 27, 1995. Records showed he completed initial operating experience on February 1, 1996, although the record did not have the signature of the Check Airman who certified the experience. The flight engineer received a line check on February 1, 1996. At the time of the incident the flight engineer had accumulated 25 flight hours as flight engineer on the Boeing 707 at Millon Air and reported he had 54 flight hours as flight engineer on the Boeing 707. He reported he had 3,800 flight hours as flight engineer on the Douglas DC-8.</p>					
FACTUAL REPORT - AVIATION					
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		NTSB ID: MIA96IA084			
		Occurrence Date: 02/22/1996			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
MIAMI INTERNATIONAL	MIA	11 Ft. MSL	9R	13000	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach:					
VFR Approach/Landing: Straight-in					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		707-323C		19582	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 7	Certified Max Gross Wt.	328000 LBS	Number of Engines: 4	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	P&W	JT3D-3B	18000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	09/1995	1129 Hours	63522 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
WILMINGTON TRUST COMPANY		1100 N. MARKET STREET			
		City	State	Zip Code	
		WILMINGTON	DE	19890	
Operator of Aircraft		Street Address			
MILLON AIR		2525 NW 72 AVE.			
		City	State	Zip Code	
		MIAMI	FL	33122	
Operator Does Business As:			Operator Designator Code: MIRA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Cargo; Supplemental					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Non-scheduled; International; Cargo					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: MIA96IA084
	Occurrence Date: 02/22/1996
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 34
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; Flight Instructor

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): Airplane; Helicopter

Instructor Rating(s): Helicopter

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 12/1995
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	10148	4500								
Pilot In Command(PIC)	10148	4500								
Instructor										
Last 90 Days		226								
Last 30 Days		226								
Last 24 Hours		14								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point MANAUS	State OF	Airport Identifier SBEG	Departure Time 1052	Time Zone EST
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Destination Same as Accident/Incident Location	State	Airport Identifier MIA	
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Type of Clearance: IFR

Type of Airspace: Class D

Weather Information

Source of Briefing: Company

Method of Briefing:

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
MIA	1622	EST	11 Ft. MSL	1 NM	180 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			3000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL	Visibility: 7 SM	Altimeter: 29.00	"Hg
Temperature: 26 °C	Dew Point: 19 °C	Wind Direction: 160		Density Altitude: 1200	Ft.
Wind Speed: 9	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: Minor	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer				1	1
Cabin Attendants					
Other Crew				1	1
Passengers					
- TOTAL ABOARD -				4	4
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	4	4

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: MIA96IA084

Occurrence Date: 02/22/1996

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

JEFFREY L. KENNEDY

Additional Persons Participating in This Accident/Incident Investigation:

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MIAMI, FL 33166