
Weight and Balance complications, McDonnell Douglas MD-83, March 7, 2000

Micro-summary: This McDonnell Douglas MD-83 required unusually high elevator forces at rotation.

Event Date: 2000-03-07 at 0615 AST


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


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


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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: ANC001A034		Aircraft Registration Number: N949AS	
		Occurrence Date: 03/07/2000		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place FAIRBANKS		State AK	Zip Code 99709	Local Time 0615	Time Zone AST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series MD-83		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 March 7, 2000, about 0615 Alaska standard time, the crew of N949AS, a McDonnell Douglas MD-83 airplane, reported a flight control anomaly during takeoff from the Fairbanks International Airport, Fairbanks, Alaska. The flight was being conducted under Title 14, CFR Part 121, as a scheduled domestic passenger flight, operated by Alaska Airlines, Inc., as Flight 92. There were no injuries to the two pilots, three flight attendants, or the 112 passengers aboard. Visual meteorological conditions prevailed, and an instrument flight plan had been filed for the flight to Anchorage, Alaska.</p> <p>After an uneventful landing at Anchorage International Airport, the captain reported to his company maintenance personnel that during the takeoff roll on runway 19R in Fairbanks, the airplane's rotation was slightly delayed by about 3 or 4 knots, and required about 30 to 35 pounds of control column back pressure in order to complete the takeoff. He added that once the airplane was established on a standard rate of climb, there were no further anomalies noted. The captain added that a flight attendant, seated at the forward "A" position, heard a loud "pinging" noise coming from just under her feet, during the takeoff in Fairbanks.</p> <p>The closest official weather observation station is located at the Fairbanks International Airport. On March 7, at 0553, an Aviation Routine Weather Report (METAR) was reporting in part: Sky conditions and ceiling, clear; visibility, 10 statute miles; wind, 030 degrees at 7 knots; temperature, 8 degrees F; dew point 1 degree F.</p> <p>During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge on March 10, the director of flight safety for the operator reported that upon arrival in Anchorage, it was discovered that an additional 500 pounds of cargo and baggage had inadvertently been loaded into the forward cargo bay. He added that a postincident review of the airplane's weight and balance computations revealed that the airplane remained within the center of gravity limits, but added that it may have accounted for the slight delay in the airplane rotation speed.</p> <p>The incident airplane underwent an extensive inspection and evaluation of the flight control system, and no flight control anomalies were discovered by company maintenance personnel.</p> <p>The airplane's flight data recorder (FDR) was removed for analysis by the operator. The operator reported that the FDR readout showed that the flight control system operated normally during the entire flight. The pilot's control column position was a recorded parameter of the incident airplane's FDR.</p>					
FACTUAL REPORT - AVIATION					
Page 1					

		NTSB ID: ANC001A034			
		Occurrence Date: 03/07/2000			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Fairbanks International	FAI	Ft. MSL	19R	5400	200
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach:					
VFR Approach/Landing:					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
McDonnell Douglas		MD-83		53022	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Tricycle					
Homebuilt Aircraft? No	Number of Seats: 148	Certified Max Gross Wt.	161000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	P&W	JT8D-217C	20850 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	03/2000	26.4 Hours	29812.5 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated? No	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
Bank of America Lease & Capital		5555 California Way, 4th Floor			
		City	State	Zip Code	
		San Francisco	CA	94104	
Operator of Aircraft		Street Address			
ALASKA AIR GROUP		P.O. BOX 68900			
		City	State	Zip Code	
		SEATTLE	WA	98168	
Operator Does Business As: ALASKA AIRLINES			Operator Designator Code: ASAA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Flag Carrier/Domestic					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: ANC001A034
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	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 54
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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

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

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Single-engine; Instrument Airplane

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 07/1999
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 01/2000
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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	11507	5544								
Pilot In Command(PIC)	6284	4440								
Instructor										
Last 90 Days		94								
Last 30 Days		11								
Last 24 Hours		1								

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 Same as Accident/Incident Location	State	Airport Identifier FAI	Departure Time 0615	Time Zone
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Destination ANCHORAGE	State AK	Airport Identifier ANC	
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Type of Clearance: IFR

Type of Airspace: Class C

Weather Information

Source of Briefing: Company

Method of Briefing: In Person

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
FAI	0553	AST	Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Clear				Ft. AGL	Condition of Light: Day
Lowest Ceiling: None			Ft. AGL	Visibility: 10 SM	Altimeter: 30.00 "Hg
Temperature: -13 °C	Dew Point: -17 °C	Wind Direction: 30		Density Altitude: Ft.	
Wind Speed: 7	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information

Aircraft Damage: None	Aircraft Fire: None	Aircraft Explosion: None
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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					
Cabin Attendants				3	3
Other Crew					
Passengers				112	112
- TOTAL ABOARD -				117	117
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	117	117

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: ANC001A034

Occurrence Date: 03/07/2000

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

CLINTON O. JOHNSON

Additional Persons Participating in This Accident/Incident Investigation:

HARRY C GILSON
Aviation Inspector
Federal Aviation Administration
4510 West International Airport Road
Anchorage, AK 99502