
Bounced landing involving a Boeing 737-400 at Juneau, August 14, 1998

Micro-summary: Bounced landing involving a Boeing 737-400.


Event Date: 1998-08-14 at 1540 ADT

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

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

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		NTSB ID: ANC98LA122		Aircraft Registration Number: N799AS	
		Occurrence Date: 08/14/1998		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place JUNEAU		State AK	Zip Code 99801	Local Time 1540	Time Zone ADT
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 737-400		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 August 14, 1998, about 1540 Alaska daylight time, a Boeing 737-400 airplane, N799AS, sustained substantial damage during landing at the Juneau International Airport, Juneau, 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 75. There were no injuries to the two pilots, three flight attendants, or the 140 passengers aboard. Visual meteorological conditions prevailed, and an instrument flight plan had been canceled prior to initiating the visual approach. The flight originated at the Seattle-Tacoma International Airport, Seattle, Washington, about 1350 Pacific daylight time.</p> <p>During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge, on August 17, the Captain/Check Airman reported the accident flight was the First Officer's second Initial Operating Experience (IOE) training flight after being hired by Alaska Airlines. He stated that the First Officer was making a visual approach to runway 26, and on initial touchdown the airplane "skipped" and became airborne. The captain said that during the initial touchdown he noted that the throttles were not in the fully retarded position. At this point, the Captain closed the throttles and instructed the first officer to maintain attitude as the second touchdown approached. He said that the auto spoilers then deployed, and the airplane settled onto the runway in a nose high attitude. The Captain characterized the second touchdown as "firm", but well within acceptable limits.</p> <p>After landing rollout, the airplane was taxied to the gate, and all of the 140 passengers disembarked uneventfully.</p> <p>A subsequent inspection by ground personnel discovered a 4 feet by 1 foot scrape located on the belly of the airplane, between stations 887 and 941.</p> <p>The airplane was later flown to Seattle, unpressurized, for further inspection, and repair. Maintenance personnel were required to replace a 2 feet by 7 feet section of aircraft skin, prior to returning the airplane to service.</p> <p>The airplane's flight data recorder (FDR) was removed and shipped to the NTSB's Washington, D.C., laboratory for analysis. The FDR readout showed that the first flare attained a pitch angle of 7 degrees. After the "skip," the pitch angle was lowered to 5 degrees, and then raised to about 8 degrees. The nose continued to rise prior to the second touchdown, and attained a pitch angle of 9.65 degrees.</p> <p>The operator's flight crew/instructor training guide states: "Maintain pitch attitude awareness during flare and landing. Aft fuselage contact will occur at approximately 9.5 degrees."</p> <p>A representative from the airline's flight safety department noted that the subject of landing</p>					
FACTUAL REPORT - AVIATION					
Page 1					

National Transportation Safety Board

**FACTUAL REPORT
AVIATION**




NTSB ID: ANC98LA122


Occurrence Date: 08/14/1998

Occurrence Type: Accident

Narrative (Continued)

pitch angle limitations will be placed on the agenda during the next instructor meeting, and addressed as an item of increased emphasis.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: ANC98LA122			
		Occurrence Date: 08/14/1998			
		Occurrence Type: Accident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
JUNEAU INTERNATIONAL	JNU	19 Ft. MSL	26	8456	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach: Visual					
VFR Approach/Landing: Full Stop; Traffic Pattern					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		737-400		29270	
Airworthiness Certificate(s): Normal					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 149	Certified Max Gross Wt.	143500 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Jet	Cfm	CFM56-3C-1	22000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness		Hours	723 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
ALASKA AIR GROUP		79 S MAIN STREET			
		City	State	Zip Code	
		SALT LAKE CITY	UT	94111	
Operator of Aircraft		Street Address			
Same as Reg'd Aircraft Owner		P.O.BOX 68900 / CODE: SEAOZ			
		City	State	Zip Code	
		SEATTLE	WA	98168	
Operator Does Business As: ALASKA AIRLINES, INC			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					
FACTUAL REPORT - AVIATION					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: ANC98LA122
	Occurrence Date: 08/14/1998
	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 48
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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

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

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--w/ waivers/lim.	Date of Last Medical Exam: 08/1998
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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	14762	2607		14762		4000	500			
Pilot In Command(PIC)	7135	1611		7135						
Instructor										
Last 90 Days	101	101								
Last 30 Days	33	33								
Last 24 Hours	6	6								

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 SEATTLE	State WA	Airport Identifier SEA	Departure Time 1350	Time Zone PDT
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Destination Same as Accident/Incident Location	State	Airport Identifier JNU	
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Type of Clearance: VFR

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
PAJ	1553	ADT	19 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Unknown			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		8000 Ft. AGL		Visibility: 10 SM	Altimeter: 29.00 "Hg
Temperature: 17 °C	Dew Point: 13 °C	Wind Direction:		Density Altitude: Ft.	
Wind Speed: Calm	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: Substantial	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					
Cabin Attendants				3	3
Other Crew					
Passengers				140	140
- TOTAL ABOARD -				145	145
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	145	145

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National Transportation Safety Board

FACTUAL REPORT

AVIATION



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Occurrence Date: 08/14/1998

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

CLINTON O. JOHNSON

Additional Persons Participating in This Accident/Incident Investigation:

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