



National Transportation Safety Board Aviation Accident Data Summary

Location:	PHOENIX, AZ	Accident Number:	LAX99FA207
Date & Time:	06/02/1999, 2026 MST	Registration:	N656DL
Aircraft:	Boeing 757-232	Injuries:	127 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

The airplane sustained substantial structural damage to the nose wheel well aft bulkhead during a hard landing. The en route flight from New York to Phoenix was uneventful. About 3 seconds before touchdown, at the termination of a visual approach, the airplane's pitch attitude increased to 5.8 degrees. The captain, who was the flying pilot, described the first touchdown as being 'firm,' and in the runway's touchdown zone, close to the centerline. There was a maintenance carry over (MCO) disabling the auto-spoiler deployment system, so the first officer manually deployed the spoilers upon touchdown. The captain stated he then applied forward pressure to the control yoke. The captain additionally reported that he 'felt a jolt' as the nose gear returned to the runway. After landing, the airplane taxied to the gate. It was subsequently examined and substantial damage was observed to the airplane's nose gear wheel well aft bulkhead, associated underlying structure, and skin panels. The digital flight data recorder was read out and it revealed that approximately 3 seconds prior to touchdown, the pitch attitude started increasing in response to nose up elevator inputs to a maximum pitch of about 5.8 degrees, and the airplane touched down (transitioned from air to ground) then became airborne again. The second air to ground transition occurred 3 seconds later and the elevator positions changed over the next second from plus 6 degrees to minus 16 degrees as the pitch attitude rapidly decreased to -0.7 degrees at a rate of 4 degrees per second. There was no evidence of any mechanical malfunctions during the landing event.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's excessive and rapid forward control column movement in response to a bounced landing, which resulted in the hard touchdown of the nose wheel.

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. RECOVERY FROM BOUNCED LANDING - INITIATED - PILOT IN COMMAND
2. (C) ELEVATOR - EXCESSIVE - PILOT IN COMMAND

Pilot Information

Certificate:	Airline Transport; Flight Engineer	Age:	54
Airplane Rating(s):	Multi-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	17000 hours (Total, all aircraft), 1445 hours (Total, this make and model), 185 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N656DL
Model/Series:	757-232 757-232	Engines:	2 Turbo Jet
Operator:	DELTA AIR LINES, INC.	Engine Manufacturer:	P&W
Operating Certificate(s) Held:	Flag carrier (121)	Engine Model/Series:	PW2037
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Bright
Observation Facility, Elevation:	PHX, 1135 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	10 knots / , 240°
Temperature:	29°C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	NEW YORK, NY (JFK)	Destination:	(PHX)

Airport Information

Airport:	PHOENIX SKY HARBOR INTL. (PHX)	Runway Surface Type:	Asphalt
Runway Used:	26R	Runway Surface Condition:	Dry
Runway Length/Width:	11001 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	8 None	Aircraft Damage:	Substantial
Passenger Injuries:	119 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): WAYNE R POLLACK Adopted Date: 05/30/2001

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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