



Aviation Investigation Final Report

Location:	Jackson Hole, Wyoming	Incident Number:	DCA111A015
Date & Time:	December 29, 2010, 11:38 Local	Registration:	N668AA
Aircraft:	Boeing 757-223	Aircraft Damage:	None
Defining Event:	Runway excursion	Injuries:	185 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

The National Transportation Safety Board’s full report is available at <http://www.nts.gov>. The Aircraft Accident Report number is NTSB/AAR-12/01.

On December 29, 2010, about 1138 mountain standard time, American Airlines flight 2253, a Boeing 757-200, N668AA, ran off the departure end of runway 19 after landing at Jackson Hole Airport (JAC), Jackson Hole, Wyoming. The airplane came to rest about 730 feet past the departure end of the runway in deep snow. The 179 passengers, 2 pilots, and 4 flight attendants on board were not injured, and the airplane sustained minor damage. The airplane was registered to and operated by American Airlines as a scheduled domestic flight under the provisions of 14 Code of Federal Regulations (CFR) Part 121. Instrument meteorological conditions in light snow prevailed at JAC at the time of the landing, and the flight operated on an instrument flight rules flight plan. The flight originated from Chicago O’Hare International Airport (ORD), Chicago, Illinois, about 0941 central standard time.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: a manufacturing defect in a clutch mechanism that prevented the speedbrakes from automatically deploying after touchdown, and the captain’s failure to monitor and extend the speedbrakes manually. Also causal was the failure of the thrust reversers to deploy when initially commanded. Contributing to the incident was the captain’s failure to confirm speedbrake extension before announcing their deployment, and his distraction caused by the thrust reversers’ failure to initially deploy after landing.

Findings

Aircraft	Drag control system - Malfunction
Personnel issues	Monitoring equip/instruments - Pilot
Personnel issues	Use of equip/system - Pilot
Aircraft	Thrust reverser - Malfunction
Personnel issues	(general) - Pilot
Organizational issues	Equipment manufacture - Manufacturer

Factual Information

History of Flight

Landing-flare/touchdown	Flight control sys malf/fail
Landing-landing roll	Powerplant sys/comp malf/fail
Landing-landing roll	Runway excursion (Defining event)

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Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer	Age:	60, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1	Last FAA Medical Exam:	November 18, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 14, 2010
Flight Time:	19645 hours (Total, all aircraft), 10779 hours (Total, this make and model)		

Co-pilot Information

Certificate:	Airline transport	Age:	48, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1	Last FAA Medical Exam:	April 5, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 15, 2010
Flight Time:	11800 hours (Total, all aircraft), 3582 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N668AA
Model/Series:	757-223	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	25333
Landing Gear Type:	Retractable -	Seats:	178
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:		Engine Manufacturer:	ROLLS-ROYCE
ELT:		Engine Model/Series:	RB.211 SERIES
Registered Owner:	AMERICAN AIRLINES INC	Rated Power:	22000 Lbs thrust
Operator:	AMERICAN AIRLINES INC	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	AALA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	JAC	Distance from Accident Site:	
Observation Time:	11:43 Local	Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	1 miles
Lowest Ceiling:	Broken	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.12 inches Hg	Temperature/Dew Point:	-3°C / -6°C
Precipitation and Obscuration:	Light - None - Snow		
Departure Point:	Chicago, IL (ORD)	Type of Flight Plan Filed:	IFR
Destination:	Jackson Hole, WY (JAC)	Type of Clearance:	IFR
Departure Time:		Type of Airspace:	

Airport Information

Airport:	Jackson Hole Airport JAC	Runway Surface Type:	Asphalt
Airport Elevation:	6491 ft msl	Runway Surface Condition:	Snow
Runway Used:	19	IFR Approach:	ILS
Runway Length/Width:	6300 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	6 None	Aircraft Damage:	None
Passenger Injuries:	179 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	
Total Injuries:	185 None	Latitude, Longitude:	43.469985,-110.760002(est)

Administrative Information

Investigator In Charge (IIC):	Sedor, Joseph
Additional Participating Persons:	Lori Anglin; The Boeing Company Robert Hendrickson; FAA Brad Brugger; Transport Workers Union of America Ken Lee; Allied Pilots Association
Original Publish Date:	July 2, 2012
Last Revision Date:	
Investigation Class:	Class 1
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=78072

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