
Collision with approach lights on landing, McDonnell Douglas MD-90-30, December 30, 2000

Micro-summary: This McDonnell Douglas MD-90-30 collided with the approach lights on landing.

Event Date: 2000-12-30 at 0808 MST


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

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

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		NTSB ID: DEN01IA036		Aircraft Registration Number: N909DA	
		Occurrence Date: 12/30/2000		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Salt Lake City		State UT	Zip Code 84122	Local Time 0808	Time Zone MST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer McDonnell Douglas		Model/Series MD-90-30		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On December 30, 2000, at 0808 mountain standard time, a McDonnell Douglas MD-90-30, N909DA, operated by Delta Air Lines, Inc., of Atlanta, Georgia, as flight 1147, sustained minor damage when it struck approach lights while landing at Salt Lake City International Airport, Salt Lake City, Utah. The airline transport rated captain and first officer, 3 flight attendants, and 75 passengers were not injured. Instrument meteorological conditions prevailed, and an IFR flight plan had been filed for the scheduled domestic passenger flight operating under Title 14 CFR Part 121. The flight originated at Kansas City, Missouri, at 0618 central standard time.</p>					
<p>According to the captain's incident report, the first approach briefing was made when ATIS (Automatic Terminal Information Service) indicated that a CAT (category) III ILS (instrument landing system) to runway 16R could be expected. When descent instructions were given, however, the descent profile was for landings to the north and this was confirmed by a revised ATIS information. The captain, who was flying the airplane, briefed the first officer for a second time, this time for a CAT III approach to runway 34R. Improved RVR (runway visual range) values indicated a Category I approach was feasible, and the decision was made to execute this approach.</p>					
<p>In his written statement that captain said, "At approximately 100 feet above minimums, I acquired the approach lights and by minimums I had acquired both the threshold and the runway. I disconnected the autopilot. As I began to initiate the flare, (the first officer) announced that sink rate was increasing. I crosschecked that my airspeed was correct and attempted to increase my pitch. Touchdown was firm but not hard and rollout was normal." Upon reaching the gate, the captain notified the control tower that he had "possibly touched down short of the runway." An airport operations vehicle reported observing an MD-90 land "prior to the numbers but had not touched down in the over run." Subsequent inspection revealed debris on runway 34R.</p>					
<p>According to airport personnel, the airplane struck the approach lights 400 feet short of the runway. Two threshold lights and one light each from the 100 foot and 200 foot approach light bars were found knocked off. Examination of the airplane disclosed damage to the left main wheel splash guard, and one of the tires was cut. A one-inch square piece of metal was found lodged in the left engine noise suppression material, and there was some damage to the left engine first stage fan section.</p>					
<p>The flight data recorder was sent to NTSB's Vehicle Recorder Division for readout. The Flight Data Recorder Factual Report is available in the public docket for this incident. Some of the findings of the report were:</p>					
<ol style="list-style-type: none"> 1. Between 0758:50 and about 0800:30, the maximum glide slope deviation was -0.14 dots. 2. At 0800:32, the autopilot was disconnected. 3. At 0800:33, the control columns moved forward (-2.04 and -1.99 degrees, respectively) and the left and right elevators moved down (-3.53 and -2.90 degrees, respectively). 					
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

SAFETY BOARD

NTSB ID: DEN011A036

Occurrence Date: 12/30/2000


Occurrence Type: Incident


Narrative (Continued)

4. At 0800:39, nose down pitch was at its maximum (-1.23 degrees).
5. Glide slope warning occurred at 0800:41.
6. At 0800:44, nose up pitch (landing flare) was at its maximum (+5.45 degrees).
7. Weight on wheels (touchdown) on the left, right, and nose landing gears occurred at 0800:46, 0800:46, and 0800:48, respectively.

Since electrical power was not interrupted after the incident and circuit breakers were not opened after the incident, the cockpit voice recorder was not retrieved because, being a closed loop 30 minute system, pertinent conversation would have been erased.

At the time of the incident, Automatic Terminal Information Service (ATIS) Sierra was current: WIND, 330 degrees at 5 knots; VISIBILITY, less than 1/4-mile, freezing fog; SKY CONDITION, indefinite ceiling 100 feet; TEMPERATURE, -6 degrees Celsius; DEW POINT, -7 degrees Celsius; ALTIMETER, 30.24 inches of mercury; REMARKS, fog dispersal ongoing.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: DEN011A036			
		Occurrence Date: 12/30/2000			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Salt Lake City International	SLC	4227 Ft. MSL	34R	12004	150
Runway Surface Type: Concrete					
Runway Surface Condition: Dry					
Type Instrument Approach: ILS-complete					
VFR Approach/Landing: Unknown					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
McDonnell Douglas		MD-90-30		53389	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 157	Certified Max Gross Wt.	156000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	Int'l Aero En	V2528D5	25000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	12/2000	3 Hours	16411 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
Delta Air Lines, Inc.		1775 Aviation Blvd., Dept. 595, Hartsfield Int'l			
		City	State	Zip Code	
		Atlanta	GA	30320	
Operator of Aircraft		Street Address			
Same as Reg'd Aircraft Owner		Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code: DALA		
- 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: DEN011A036
	Occurrence Date: 12/30/2000
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 52
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s):

Airplane Rating(s):

Rotorcraft/Glider/LTA:

Instrument Rating(s):

Instructor Rating(s):

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 04/2000
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 10/2000
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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	18000	5410								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	85	85								
Last 30 Days										
Last 24 Hours	14	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 Kansas City	State MO	Airport Identifier MCI	Departure Time 0618	Time Zone CST
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Destination Same as Accident/Incident Location	State	Airport Identifier SLC	
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Type of Clearance: IFR

Type of Airspace: Class B

Weather Information

Source of Briefing:
Company

Method of Briefing: Unknown

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
SLC	0756	MST	4227 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition:				Ft. AGL	Condition of Light: Day
Lowest Ceiling: Overcast			100 Ft. AGL	Visibility: 0.25 SM	Altimeter: 30.24 "Hg
Temperature: -7 °C	Dew Point: -8 °C	Wind Direction:		Density Altitude: 2036 Ft.	
Wind Speed: Calm	Gusts:	Weather Conditions at Accident Site: Instrument Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
Restrictions to Visibility: Fog					
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					
Cabin Attendants				3	3
Other Crew					
Passengers				75	75
- TOTAL ABOARD -				80	80
Other Ground					
- GRAND TOTAL -				80	80

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: DEN011A036

Occurrence Date: 12/30/2000

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

Arnold W. Scott

Additional Persons Participating in This Accident/Incident Investigation:

Grant M Pearsoll
Aviation Safety Inspector (Geographic)
Federal Aviation Administration
116 North 2400 West
Salt Lake City, UT 84116