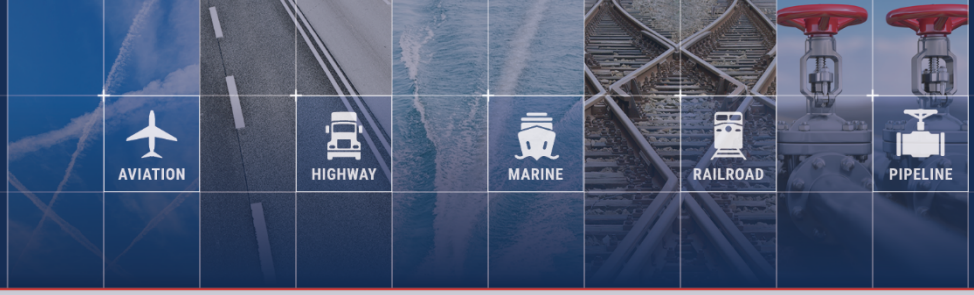

Aviation Investigation Factual Report

Location:	DFW AIRPORT, Texas	**Accident Number:**	FTW99LA054
Date & Time:	December 26, 1998, 19:40 Local	**Registration:**	N907DE
Aircraft:	McDonnell Douglas MD-88	**Aircraft Damage:**	None
Defining Event:		**Injuries:**	1 Serious, 49 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Factual Information

On December 26, 1998, at 1940 central standard time, a McDonnell Douglas MD-88 turbojet transport airplane, N907DE, operating as Delta Airlines flight 1922, was undamaged during an emergency evacuation following a fire on the right (#2) engine while holding for departure at the Dallas/Fort Worth International Airport (DFW), Texas. The airplane was registered to and operated by Delta Airlines, Inc., of Atlanta, Georgia, under 14 Code of Federal Regulations Part 121. One passenger was seriously injured during the emergency evacuation. The airline transport rated captain, first officer, 3 flight attendants and the 44 other passengers were uninjured. Visual meteorological conditions prevailed for the scheduled domestic passenger flight for which an IFR flight plan was filed. The aircraft was holding for departure on Runway 17R at the time of the accident. The flight's destination was the Cincinnati/Northern Kentucky International Airport (CVG), near Covington, Kentucky.

According to the operator, the flight crew elected to delay starting the #2 engine and taxi to the runway on the left (#1) engine after pushing back from the gate. The FAA inspector, who traveled to the accident site, stated that when the flight crew initially attempted to start the #2 engine, they "inadvertently neglected to turn the ignition switch on, forcing them to abort the start." During the second attempt to start the engine, "an overtemp occurred and a tailpipe fire ensued."

The flight crew reported to the operator that the engine temperature rose rapidly, and suspecting a "hot start," the flight crew shut off the fuel supply to the engine, as they continued to motor the engine with the starter.

Personnel at the East Control Tower observed flames coming out of the exhaust stack and alerted the flight crew. The flight crew reported that they had experienced a "hot start," but according to their indications in the cockpit, the fire was out. An ATR-42 operated by American Eagle as flight number 541 was in sequence behind the Delta jet. The flight crew from flight 541, who were monitoring the radio calls between the tower and the Delta jet, reported that the fire lingered in the exhaust. Personnel at the East Control Tower confirmed that the engine was still on fire and initiated an Alert II Response, which dispatched Airport Rescue and Fire Fighting (ARFF) equipment to assist.

The captain commanded an evacuation from the two cabin doors located on the left side of the airplane. The emergency slides on the left side of the airplane functioned normally. Due to the light passenger load and the higher risk of injuries, the over wing exits were not used during the evacuation. During the emergency evacuation, the three flight attendants were assisted by four "commuting" flight attendants and two "commuting" pilots, resulting in a "calm and controlled" emergency evacuation to the taxiway. According to airport personnel, all passengers were off the aircraft within 20 seconds after the slides were deployed.

A female "non-revenue" passenger, who exited the airplane through the aft door slide, slid past the awaiting crew members, twisting her right ankle. The emergency slide from the aft door deploys at a steeper angle than the one for the forward door. Both slides are the same length; however, the aft door is higher above the ground than the forward door. The passenger was treated by medical personnel and transported to a local hospital. Subsequent medical reports and X-rays revealed that the passenger sustained a hairline fracture of a bone in her right ankle.

The remaining passengers and crew members were bused to the terminal without further incident. Airport Operations personnel reported that operations on runway 17R were suspended for a total of 15 minutes. The operator reported that the airplane had 30,600 pounds of fuel on board at the time of the accident. There was no reported fuel spill and airport property was undamaged. No delays were reported as traffic was diverted to land on 17L and depart from 17C.

The airplane and the right engine were inspected for fire damage. No damage was found. The ignition and fuel systems for the #2 engine were inspected and checked. No defects were found and the airplane was returned to service.

Pilot Information

Certificate:	Airline transport	**Age:**	44,Male
Airplane Rating(s):	Multi-engine land	**Seat Occupied:**	Left
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 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	November 1, 1998
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	7990 hours (Total, all aircraft), 2893 hours (Total, this make and model), 175 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	McDonnell Douglas	**Registration:**	N907DE
Model/Series:	MD-88 MD-88	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Transport	**Serial Number:**	53416
Landing Gear Type:	Retractable - Tricycle	**Seats:**	149
Date/Type of Last Inspection:	November 2, 1998 Continuous airworthiness	**Certified Max Gross Wt.:**	149500 lbs
Time Since Last Inspection:	38 Hrs	**Engines:**	2 Turbo jet
Airframe Total Time:	17695 Hrs	**Engine Manufacturer:**	P&W
ELT:	Not installed	**Engine Model/Series:**	JT-8D-219
Registered Owner:	DELTA AIR LINES, INC.	**Rated Power:**	19000 Lbs thrust
Operator:		**Operating Certificate(s) Held:**	Flag carrier (121)
Operator Does Business As:	DELTA AIRLINES	**Operator Designator Code:**	DALA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	DFW ,603 ft msl	**Distance from Accident Site:**	
Observation Time:	19:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	160°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	4°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(DFW)	**Type of Flight Plan Filed:**	IFR
Destination:	CINCINNATI (CVG)	**Type of Clearance:**	IFR
Departure Time:	00:00 Local	**Type of Airspace:**	Class B

Airport Information

Airport:	DFW INTERNATIONAL AIRPORT DFW	**Runway Surface Type:**	
Airport Elevation:	603 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	5 None	**Aircraft Damage:**	None
Passenger Injuries:	1 Serious, 44 None	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious, 49 None	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Casanova, Hector
Additional Participating Persons:	PAUL E COTTI; DFW AIRPORT , TX
Report Date:	December 10, 1999
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=45515