



# Aviation Investigation Final Report

<b>Location:</b>	New York, New York	<b>Accident Number:</b>	DCA15FA085
<b>Date &amp; Time:</b>	March 5, 2015,	<b>Registration:</b>	N909DL
<b>Aircraft:</b>	MCDONNELL DOUGLAS AIRCRAFT CO MD 88	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	132 None
<b>Flight Conducted Under:</b>	Part 121: Air carrier - Scheduled		

## Analysis

NTSB investigators traveled in support of this investigation and used data obtained from various sources to prepare this aircraft accident report.

The Safety Board's full report is available at <http://www.nts.gov/investigations/AccidentReports/Pages/AccidentReports.aspx>. The Aircraft Accident Report number is NTSB/AAR-16/02.

On March 5, 2015, at 1102 eastern standard time, Delta Air Lines flight 1086, a Boeing MD-88, N909DL, was landing on runway 13 at LaGuardia Airport, New York, New York, when it departed the left side of the runway, contacted the airport perimeter fence, and came to rest with the airplane's nose on an embankment next to Flushing Bay. The 2 pilots, 3 flight attendants, and 98 of the 127 passengers were not injured; the other 29 passengers received minor injuries. The airplane was substantially damaged. Flight 1086 was a regularly scheduled passenger flight from Hartsfield-Jackson Atlanta International Airport, Atlanta, Georgia, operating under the provisions of 14 *Code of Federal Regulations* Part 121. An instrument flight rules flight plan had been filed. Instrument meteorological conditions prevailed at the time of the accident.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

the captain's inability to maintain directional control of the airplane due to his application of excessive reverse thrust, which degraded the effectiveness of the rudder in controlling the airplane's heading. Contributing to the accident were the captain's (1) situational stress resulting from his concerns about stopping performance and (2) attentional limitations due to the high workload during the landing, which prevented him from immediately recognizing the use of excessive reverse thrust.

## Findings

<b>Aircraft</b>	Powerplant parameters - Incorrect use/operation
<b>Aircraft</b>	(general) - Capability exceeded
<b>Personnel issues</b>	Perception - Pilot
<b>Personnel issues</b>	Task overload - Pilot
<b>Organizational issues</b>	(general) - Operator
<b>Organizational issues</b>	(general) - Manufacturer
<b>Personnel issues</b>	(general) - Cabin crew
<b>Environmental issues</b>	Snow/slush/ice covered surface - Availability of related info

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Loss of control on ground (Defining event)
<b>Landing-landing roll</b>	Runway excursion
<b>Landing-landing roll</b>	Collision with terr/obj (non-CFIT)

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### Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	56
<b>Airplane Rating(s):</b>	Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Unknown	<b>Last FAA Medical Exam:</b>	January 5, 2015
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	October 19, 2014
<b>Flight Time:</b>	15203 hours (Total, all aircraft), 11687 hours (Total, this make and model), 150 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Co-pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	46
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Unknown	<b>Last FAA Medical Exam:</b>	July 26, 2014
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	January 11, 2015
<b>Flight Time:</b>	4708 hours (Total, all aircraft), 2937 hours (Total, this make and model), 185 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	MCDONNELL DOUGLAS AIRCRAFT CO	<b>Registration:</b>	N909DL
<b>Model/Series:</b>	MD 88 88	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1987	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	49540
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	March 3, 2015 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	161000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	Turbo fan
<b>Airframe Total Time:</b>	71195 Hrs at time of accident	<b>Engine Manufacturer:</b>	Pratt & Whitney
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	JT8D-219
<b>Registered Owner:</b>	WILMINGTON TRUST COMPANY TRUSTEE	<b>Rated Power:</b>	21000 Lbs thrust
<b>Operator:</b>	Delta Air Lines	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KLGA	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	15:51 Local	<b>Direction from Accident Site:</b>	0°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	0.25 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	100°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.12 inches Hg	<b>Temperature/Dew Point:</b>	-3°C / -5°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Atlanta, GA (ATL )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	New York, NY (LGA )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	09:05 Local	<b>Type of Airspace:</b>	Class B

## Airport Information

<b>Airport:</b>	LA GUARDIA LGA	<b>Runway Surface Type:</b>	Asphalt,Concrete
<b>Airport Elevation:</b>	21 ft msl	<b>Runway Surface Condition:</b>	Snow,Wet
<b>Runway Used:</b>	13	<b>IFR Approach:</b>	ILS
<b>Runway Length/Width:</b>	7003 ft / 150 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	5 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	127 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	132 None	<b>Latitude, Longitude:</b>	40.778331,-73.86972(est)

## Administrative Information

**Investigator In Charge (IIC):** Bower, Daniel

**Additional Participating Persons:**

**Original Publish Date:** March 3, 2017

**Last Revision Date:**

**Investigation Class:** [Class 1](#)

**Note:** The NTSB traveled to the scene of this accident.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=90822>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).