



# Aviation Investigation Final Report

<b>Location:</b>	Queens, New York	<b>Incident Number:</b>	DCA23LA125
<b>Date &amp; Time:</b>	January 13, 2023, 20:44 Local	<b>Registration:</b>	N914DU (A1); N754AN (A2)
<b>Aircraft:</b>	Boeing 737-900ER (A1); Boeing 777-223 (A2)	<b>Aircraft Damage:</b>	None (A1); None (A2)
<b>Defining Event:</b>	Runway incursion veh/AC/person	<b>Injuries:</b>	159 None (A1); 149 None (A2)
<b>Flight Conducted Under:</b>	Part 121: Air carrier - Scheduled (A1); Part 121: Air carrier - Scheduled (A2)		

## Analysis

On January 13, 2023, about 2044 eastern standard time, the flight crew of American Airlines (AAL) flight 106, a Boeing 777-200, N754AN, crossed runway 4L on taxiway J without air traffic control (ATC) clearance at John F. Kennedy International Airport (JFK), Queens, New York, causing the flight crew of Delta Air Lines (DAL) flight 1943, a Boeing 737-900, N914DU, to abort their takeoff roll on runway 4L. None of the 6 crew and 153 passengers on DAL1943, nor the 12 crew and 137 passengers on AAL106, were injured, and there was no damage to either airplane. AAL106 operated as a Title 14 Code of Federal Regulations (CFR) Part 121 scheduled international passenger flight from JFK to London Heathrow International Airport (LHR), London, United Kingdom. DAL1943 was a CFR Part 121 scheduled international passenger flight from JFK to Santo Domingo (SDQ), Dominican Republic. Night visual meteorological conditions prevailed at the airport at the time of the incident.

## Probable Cause and Findings

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

The American Airlines flight 106 (AAL106) crew’s surface navigation error due to distractions caused by their performance of concurrent operational tasks during taxi, which resulted in a loss of situational awareness. Contributing to the incident was the air traffic control tower team’s nondetection of the AAL106 crew’s deviation from taxi instructions while performing

concurrent operational tasks; the timing of the runway status light system, which activated too late to prevent the AAL106 crew from crossing the runway hold short line; and American Airlines' lack of adequate risk controls to prevent concurrent flight crew tasks from leading to distraction, loss of situational awareness, and deviation from an authorized taxi clearance. Reducing the severity of the incident, and likely preventing an accident, was the activation of the ASDE-X warning in the air traffic control tower and the local controller's prompt cancellation of DAL1943's takeoff clearance.

## Findings

<b>Personnel issues (A1)</b>	Incorrect action performance - Pilot of other aircraft
<b>Personnel issues (A1)</b>	Task monitoring/vigilance - Pilot of other aircraft
<b>Personnel issues (A1)</b>	Lack of action - ATC personnel
<b>Environmental issues (A1)</b>	Runway lighting - Timing of related info
<b>Organizational issues (A1)</b>	Adequacy of safety program - Operator
<b>Aircraft (A1)</b>	Data recorders (flight/maint) - Design
<b>Personnel issues (A2)</b>	Incorrect action performance - Flight crew
<b>Personnel issues (A2)</b>	Task monitoring/vigilance - Flight crew
<b>Personnel issues (A2)</b>	Lack of action - ATC personnel
<b>Environmental issues (A2)</b>	Runway lighting - Timing of related info
<b>Organizational issues (A2)</b>	Adequacy of safety program - Operator
<b>Aircraft (A2)</b>	Data recorders (flight/maint) - Design

## Factual Information

### History of Flight

<b>Takeoff (A1)</b>	Runway incursion veh/AC/person (Defining event)
<b>Takeoff-rejected takeoff (A1)</b>	Runway incursion veh/AC/person
<b>Taxi (A2)</b>	Runway incursion veh/AC/person

### Information

<b>Certificate:</b>	<b>Age:</b>
<b>Airplane Rating(s):</b>	<b>Seat Occupied:</b>
<b>Other Aircraft Rating(s):</b>	<b>Restraint Used:</b>
<b>Instrument Rating(s):</b>	<b>Second Pilot Present:</b>
<b>Instructor Rating(s):</b>	<b>Toxicology Performed:</b>
<b>Medical Certification:</b>	<b>Last FAA Medical Exam:</b>
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>
<b>Flight Time:</b>	

### Aircraft and Owner/Operator Information (A1)

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N914DU
<b>Model/Series:</b>	737-900ER	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2019	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	62782
<b>Landing Gear Type:</b>		<b>Seats:</b>	222
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Turbo fan
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	CFM INTL
<b>ELT:</b>		<b>Engine Model/Series:</b>	CFM56-7B27E/B
<b>Registered Owner:</b>	Delta Air Lines	<b>Rated Power:</b>	27300 Lbs thrust
<b>Operator:</b>	Delta Air Lines	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)

## Aircraft and Owner/Operator Information (A2)

<b>Aircraft Make:</b>	Boeing	<b>Registration:</b>	N754AN
<b>Model/Series:</b>	777-223	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2001	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	30262
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	440
<b>Date/Type of Last Inspection:</b>	January 13, 2023 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	648000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Turbo fan
<b>Airframe Total Time:</b>	80362 Hrs at time of accident	<b>Engine Manufacturer:</b>	ROLLS-ROYC
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	TRENT 892-17 W/QEC
<b>Registered Owner:</b>	American Airlines	<b>Rated Power:</b>	90000 Lbs thrust
<b>Operator:</b>	American Airlines	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	AALA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>	JFK	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	01:51 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	Overcast / 3000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	17 knots / 25 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	320°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.7 inches Hg	<b>Temperature/Dew Point:</b>	-15.6°C / -20°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Queens, NY (A1); Queens, NY (A2)	<b>Type of Flight Plan Filed:</b>	
<b>Destination:</b>	Santo Domingo, Dominican Republic (SDQ) (A1); London, United Kingdom (LHR) (A2)	<b>Type of Clearance:</b>	VFR (A1); Unknown (A2)
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	John F. Kennedy International Airport KJFK	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	13 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	4L	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	12079 ft / 200 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information (A1)

<b>Crew Injuries:</b>	6 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	153 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	159 None	<b>Latitude, Longitude:</b>	40.6413,-73.7781

## Wreckage and Impact Information (A2)

<b>Crew Injuries:</b>	12 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	137 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	149 None	<b>Latitude, Longitude:</b>	40.6413,-73.7781

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Bower, Daniel
<b>Additional Participating Persons:</b>	Patrick Lusch; FAA Joshua Migdal; Delta Air Lines John DeLeeuw; American Airlines Eric East; Boeing Craig Stroup; Allied Pilots Association Brandon Johnson; National Air Traffic Controllers Association
<b>Original Publish Date:</b>	June 12, 2024
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 1</a>
<b>Note:</b>	The NTSB did not travel to the scene of this incident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=106577">https://data.ntsb.gov/Docket?ProjectID=106577</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).