



Aviation Investigation Final Report

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

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

Factual Information

History of Flight

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

Information

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

Aircraft and Owner/Operator Information (A1)

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

Aircraft and Owner/Operator Information (A2)

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

Meteorological Information and Flight Plan

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

Airport Information

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

Wreckage and Impact Information (A1)

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

Wreckage and Impact Information (A2)

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

Administrative Information

Investigator In Charge (IIC):	Bower, Daniel
Additional Participating Persons:	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
Original Publish Date:	June 12, 2024
Last Revision Date:	
Investigation Class:	Class 1
Note:	The NTSB did not travel to the scene of this incident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106577

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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](#).