



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	New York, NY	<b>Accident Number:</b>	NYC06LA222A
<b>Date &amp; Time:</b>	09/08/2006, 1923 EDT	<b>Registration:</b>	C-GJTA
<b>Aircraft:</b>	Airbus Industrie A319-112	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>		<b>Injuries:</b>	109 None
<b>Flight Conducted Under:</b>	Part 129: Foreign		

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## Analysis

The Airbus A319 was cleared to cross an active runway by a ground controller while an airplane was on short final. An Embraer EMB-170 was stopped 16th in line for takeoff with the parking brake engaged, on a perpendicular taxiway with its tail in close proximity to the taxiway the A319 just entered. While taxiing, the captain of the Airbus realized that the Embraer, which was stopped on the perpendicular taxiway, would be in close proximity on his right side. After crossing the active runway, and while approaching the EMB-170, both the captain and first officer became concerned as to whether the tail of their A319 had actually passed inside the hold short line for the active runway they just crossed. As the A319 approached the EMB-170 the captain slowed his airplane to approximately 2 knots, and taxied well to the left of the centerline. The captain of the A319 then lost sight of the EMB-170 and asked the first officer to "confirm clear of the Embraer." The first officer gave a verbal response along with a "thumbs up." Approximately 2 seconds later the captain asked the first officer "confirm still clear?" and the first officer responded "clear but close." Moments later as the captain was getting ready to ask the first officer for confirmation for a third time, the right wingtip of their airplane made contact with the EMB-170 airplane's right elevator. Sunset had occurred approximately 6 minutes prior and there was no lunar illumination. According to recorded voice data, the ground controller had instructed the A319 to, "keep his speed up" while crossing the runway since he had an airplane on a two mile final and then to join a taxiway which was past the stationary EMB-170. This required the A319 to pass behind it, despite its 111-foot wingspan. At approximately the time that the collision occurred the controller asked the EMB-170 if they could "pull up just a little bit" but, the first officer of the EMB-170 moments later asked over the radio if they had just been struck. A review of the airport layout plan and satellite imagery revealed, that the hold short line was located approximately 245 feet from the shoulder of the runway and the width of the taxiway was 75 feet.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The Airbus first officer's misjudged clearance from the EMB-170. Also causal was the ground controller's decision to issue a taxi clearance for the Airbus to pass behind the EMB-170. A

factor to the accident was the light condition.

## Findings

Occurrence #1: COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)

Phase of Operation: TAXI

### Findings

1. (C) ATC CLEARANCE - INCORRECT - ATC PERSONNEL(LCL/GND/CLNC)
2. (F) LIGHT CONDITION - DUSK
3. (C) CLEARANCE - MISJUDGED - COPILOT/SECOND PILOT

## Factual Information

On September 8, 2006, about 1923 eastern daylight time, an Embraer EMB-170-100 SE, N864RW, operating as Shuttle America flight 6461, sustained substantial damage when it was struck by another airplane, while stopped on a taxiway at La Guardia International Airport (LGA), Flushing, New York. The other airplane, an Airbus A319-112, C-GJTA, operating as Air Canada flight 723, sustained minor damage. None of the 4 crewmembers and 66 passengers aboard the Embraer were injured, nor were any of the 6 crewmembers and 103 passengers onboard the Airbus. Visual meteorological conditions prevailed at the time of the accident. The Embraer had an instrument rules flight plan on file to Chicago O'Hare International Airport (ORD), Chicago, Illinois, and the Airbus had an instrument rules flight plan on file to Lester B. Pearson International Airport (CYYZ), Toronto, Canada. The passenger flights were to be conducted under 14 CFR Part 121 and 14 CFR Part 129, respectively.

The accident occurred where taxiway Foxtrot (F) and taxiway Alpha Alpha (AA) intersected.

According to the flight crews, the Airbus which was on taxiway F was cleared to "expedite across runway 22" as an airplane was on short final. The Embraer was stopped 16th in line for takeoff with the parking brake engaged, facing north on AA between taxiways F and Echo (E).

The captain of the Airbus realized that the Embraer, which was stopped on taxiway AA, would be in close proximity to his right side. After crossing runway 22 he slowed his airplane to "approximately 2 knots," and taxied "well to the left" of the centerline. Both the captain and first officer were unsure if the tail of their airplane had actually passed inside the "hold short" line separating taxiway F and runway 22.

The captain of the Airbus then lost sight of the Embraer and asked the first officer to "confirm clear of the Embraer." The first officer gave a verbal response along with a "thumbs up." Approximately 2 seconds later, the captain asked the first officer "confirm still clear?" and the first officer responded "clear but close." Moments later as the captain was getting ready to ask the first officer for confirmation a third time, the right wingtip of their airplane made contact with the Embraer's right elevator.

According to recorded voice and airport movement area safety system (AMASS) data, the ground controller instructed Air Canada 723 to; "Keep the speed up, traffic two mile final. I want you to cross runway 4, correction, cross runway 22 at taxiway foxtrot, head straight ahead on fox, straight ahead on fox, right turn double bravo, hold short of echo."

This was acknowledged by the Air Canada flight crew, and at 19:23:14 the Airbus entered runway 22 while traveling southwest on taxiway F. At 19:23:25, AMASS depicted the Airbus clearing the opposite side of the runway and re-entering taxiway F. The ground controller then asked Shuttle America 6461, if they could "pull up just a little bit" and at 19:23:37, the target representing the Airbus merged with the target representing the Embraer. The first officer of the Embraer then asked over the radio "did someone just hit us?" At 19:23:56 a target representing an arriving American Airlines airplane (the traffic) crossed the depicted approach end of runway 22 and then passed abeam taxiway F at 19:24:19.

The elapsed time between the Airbus clearing runway 22 to both targets merging was 12 seconds. The elapsed time between the Airbus clearing the runway to the arriving airplane crossing the threshold was 31 seconds.

A review of the airport layout plan and satellite imagery revealed that the hold short line was located approximately 245 feet from the shoulder of runway 22. The distance from the hold short line to the point of impact was approximately 145 feet. The width of taxiway F was 75 feet.

According to the manufacturer, the A319-112 was 111 feet long, with a wingspan of 111 feet, 3 inches.

According to the FAA, the captain of the Airbus held a Canadian issued airline transport pilot certificate with multiple ratings including airplane multi-engine land, and a type rating for the Airbus. According to records provided by Air Canada, he had a total flight time of 7,839 hours, with 4,207 hours in the Airbus.

According to the FAA, the first officer held a Canadian issued airline transport pilot certificate with multiple ratings including airplane multi-engine land, and a type rating for the Airbus. According to records provided by Air Canada, he had a total flight time of 4,499 hours, with 1,100 hours in the Airbus.

Damage reported by the operators included damage to the right wing fence and a filler panel to the Airbus, and right elevator damage to the Embraer.

A weather observation taken about 34 minutes prior to the accident, included, visibility of 10 miles. Review of sun and moon data obtained from the U.S. Naval Observatory Astronomical Application Department for New York, New York, revealed that sunset was at 1917 and the end of civil twilight was at 1944. There was no lunar illumination at the time of the accident.

## Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With Waivers/Limitations	<b>Last Medical Exam:</b>	09/01/2006
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	07/01/2006
<b>Flight Time:</b>	7839 hours (Total, all aircraft), 4207 hours (Total, this make and model)		

## Co-Pilot Information

<b>Certificate:</b>	Airline Transport; Commercial	<b>Age:</b>	41, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With Waivers/Limitations	<b>Last Medical Exam:</b>	06/01/2006
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	06/01/2006
<b>Flight Time:</b>	4499 hours (Total, all aircraft), 1100 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	Airbus Industrie	<b>Registration:</b>	C-GJTA
<b>Model/Series:</b>	A319-112	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	1673
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	145
<b>Date/Type of Last Inspection:</b>	09/01/2006, AAIP	<b>Certified Max Gross Wt.:</b>	141090 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Turbo Fan
<b>Airframe Total Time:</b>	13215.5 Hours	<b>Engine Manufacturer:</b>	CFM International
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	CFM56-5B6/P
<b>Registered Owner:</b>	AIR CANADA	<b>Rated Power:</b>	19060 lbs
<b>Operator:</b>	AIR CANADA	<b>Air Carrier Operating Certificate:</b>	Foreign Air Carrier (129)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	ARNF

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	LGA, 22 ft msl	Observation Time:	1851 EDT
Distance from Accident Site:		Direction from Accident Site:	
Lowest Cloud Condition:	Few / 5000 ft agl	Temperature/Dew Point:	27° C / 12° C
Lowest Ceiling:	Broken / 25000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	4 knots, 250°	Visibility (RVR):	
Altimeter Setting:	30.04 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New York, NY (LGA)	Type of Flight Plan Filed:	IFR
Destination:	Toronto (CYYZ)	Type of Clearance:	None
Departure Time:	1830 EDT	Type of Airspace:	

## Airport Information

Airport:	La Guardia Airport (LGA)	Runway Surface Type:	
Airport Elevation:	22 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	6 None	Aircraft Damage:	Minor
Passenger Injuries:	103 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	109 None	Latitude, Longitude:	40.777222, -73.872500

## Administrative Information

Investigator In Charge (IIC):	Todd G Gunther	Adopted Date:	03/31/2008
Additional Participating Persons:	Richard Martin; FAA/IFO; New York, NY Peter Rowntree; TSBC; Ottawa, Canada,		
Publish Date:	01/11/2016		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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