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## Ground collision between an Airbus A319 and Boeing 757, JFK, January 19, 2003

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**Micro-summary:** This Boeing 757 was emplaning passengers when it was struck by an Airbus A319.

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**Event Date:** 2003-01-19 at 0715 EST

**Investigative Body:** National Transportation Safety Board (NTSB), USA


**Investigative Body's Web Site:** <http://www.nts.gov/>

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 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: NYC03FA039		Aircraft Registration Number: N550NW	
		Occurrence Date: 01/19/2003		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
<b>Location/Time</b>					
Nearest City/Place Flushing		State NY	Zip Code 11301	Local Time 0715	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility: 0		Direction From Airport: 0	
<b>Aircraft Information Summary</b>					
Aircraft Manufacturer Boeing		Model/Series 757-251		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
<b>Narrative</b>					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
History of Flight					
<p>On January 19, 2003, about 0715 eastern standard time, a Boeing 757-251, N550NW, was substantially damaged while parked at a gate, when it was struck by an Airbus A319 being taxied by maintenance technicians at LaGuardia Airport, Flushing, New York. Both airplanes were operated by Northwest Airlines, Inc (NWA). The certificated airline transport pilot on the Boeing was not injured. The two maintenance technicians on the Airbus, and four ground crew members sustained minor injuries. One customer service agent was seriously injured. Visual meteorological conditions prevailed, and an instrument flight rules flight plan had been filed for the flight scheduled for a 0800 departure to Minneapolis, Minnesota. The scheduled passenger flight was conducted under 14 CFR Part 121.</p> <p>The Boeing was parked at gate 9. The first officer was in the terminal building, while the captain was in the cockpit preparing the airplane for departure. In a written statement, the captain said he heard the sound of aircraft engines at a "higher thrust level" and observed the Airbus approaching gate 10 at a "higher than normal rate of speed." He further stated, it was immediately apparent that the Airbus would not be able to stop at a normal parking location.</p> <p>The Airbus struck the concrete support column of the jetway, and the left wing contacted the right side of the Boeing. The nose gear sheared off the Airbus, and the right side of the Boeing sustained a 6-foot long, 2-foot wide gash, just aft of the R1 door.</p> <p>During an interview, the taxi mechanic-in-charge of the Airbus, who was seated in the left seat, stated he utilized the airplane checklists. After starting the auxiliary power unit, both engines, and performing a brake check, he taxied from a maintenance area to the gate area. When he arrived in the vicinity of gate 10, he activated the parking brake and waited for ground personnel and a jetway operator to arrive. After the ground personnel arrived he released the parking brake. The airplane did not move and he advanced the throttles out of their idle detents, "a couple of inches, about halfway." The airplane began to move at a "fairly decent speed," and he realized the throttles were still out of the idle detent position. He retarded the throttles and applied brakes; however, the airplane did not slow and continued until it struck the jetway. The mechanic estimated that the airplane was about halfway down the parking line when he pulled back the throttles.</p> <p>During an interview, the mechanic seated in the right seat, stated he was checking the right wing clearance when the airplane began to move toward the gate. He told the taxiing mechanic to apply the brakes, and observed that the throttles were out of the idle detents. He pulled the throttles back, and the airplane struck the jetway shortly thereafter. He did not apply the brakes because the "impact happened so fast." He also did not recall feeling the sensation of braking action.</p> <p>Other maintenance technicians and ground support personnel stated that they heard the sound of</p>					
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## Narrative (Continued)

engines spooling up, and observed the airplane moving "fast," toward the gate.

The accident occurred during the hours of daylight approximately 40 degrees, 46 minutes north latitude, and 73 degrees, 52 minutes west longitude.

## PERSONNEL INFORMATION

## Taxi Mechanic-in-Charge

The taxiing mechanic was hired by NWA on February 9, 1998. On the date of the accident, he was scheduled to work from 2330 until 0730. The taxiing mechanic stated he was qualified to taxi the Boeing 727, Boeing 757, and the A319/320. He was not certain if he was current.

Review of the taxiing mechanic's training records revealed that he was qualified to taxi Boeing 727 and 757 airplanes. He had received approximately 5 hours of initial A319 taxi on-the-job training (OJT). However, he had not attended an A319/A320 taxi training class and did not possess an authorization to taxi the A319. The mechanic stated that he was not certain the last time he taxied the Airbus; however, he had taxied the airplane regularly as part of his normal work duties.

## Taxi Assistant Mechanic

The taxi assistant mechanic seated in the right seat was hired by NWA on October 26, 1991. On the date of the accident, he was scheduled to work from 2330 until 0730.

Review of the taxi assistant mechanic's training records revealed he was qualified and current to taxi the A319/A320. The mechanic stated he regularly taxied the Airbus and other aircraft on a daily basis as part of his normal duties. He was also qualified to taxi McDonnell Douglas DC-9, and Boeing 757 airplanes.

## FLIGHT RECORDERS

The Airbus was equipped with an Allied Signal cockpit voice recorder (CVR) and a Fairchild solid state flight data recorder (FDR), which were retained for further examination.

## CVR

A CVR group was convened on January 28, 2003. The CVR group reviewed the CVR recording and prepared a transcript of the final 14 minutes.

## FDR

Review of the flight data recorder for the time period surrounding the accident revealed that about 12 seconds after the parking brake was released, the thrust lever angles for both engines were increased to about 17 degrees for about 9 seconds, before they were returned to the idle position. During that time, the engines N1 and N2 speeds increased to about 71, and 85 percent, respectively.

Examination of the data contained on the FDR was consistent with the airplane's air data inertial reference units (ADIRU) not being "aligned" prior to the accident, and therefore an additional 11 parameters, including ground speed were not recorded.

Review of the Airbus A319/A320 Taxi and Engine Run-Up checklist, revealed that item 6 of the Aircraft Power Up checklist called for "ADIRS...Align."

## TESTS AND RESEARCH

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Examination of airplane's brake-steering control unit, and the electronic control units from each engine, did not reveal any evidence of a system failure, which would have contributed to the accident.

## ADDITIONAL INFORMATION

## Toxicology

Post accident drug and alcohol testing conducted on both mechanics was negative.

## Ramp Examination


After visually examining the ramp area, an FAA inspector stated that the area sloped upward as the terrain reached the accident and adjacent gates. The taxi mechanic-in-charge reported that he was aware that the ground was slightly inclined, and he had taxied to that particularly gate on other occasions. A NWA survey of the lead-in line to gate 10, which measured 122-feet-long, revealed a .25 percent slope. The lead-in line to gate 9 measured 162-feet-long, and contained a .77 percent slope.


The taxi mechanic-in-charge reported that "ninety-eight to ninety-nine percent of the time" ground personnel were already in position to park the airplane as he arrived at the gate, and he would normally taxi without stopping. The assistant taxi mechanic stated that he had to stop and wait for ground personnel to be in position to park an airplane, about one-third of the time.

## NWA Taxi Policy

Both mechanics reported that there was normally no discussion between mechanics regarding who should be the taxiing mechanic-in-charge. At the time of the accident, NWA mechanic taxi procedures outlined in section 02-05-03 of the General Engineering and Maintenance Manual (GEMM) required the taxi mechanic-in-charge (left seat) to be properly trained, qualified and current on the applicable fleet type. The taxi assistant (right seat) was required to be run/taxi qualified on any company fleet type.

After the accident, NWA added a challenge-response protocol to the run-taxi checklist to confirm taxi qualifications. NWA run/taxi qualified personnel were also required to successfully complete a new web-based training module to remain run/taxi qualified. In addition, NWA flight operations conducted a random sampling of ground taxi information from A320 ADIRU cards that document ground speed, engine speed and thrust lever movement and have utilized the information to revise their taxi policy and training.

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<b>Landing Facility/Approach Information</b>					
Airport Name LA GUARDIA	Airport ID: LGA	Airport Elevation 22 Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown					
Runway Surface Condition: Unknown					
Type Instrument Approach: Unknown					
VFR Approach/Landing: Unknown					
<b>Aircraft Information</b>					
Aircraft Manufacturer Boeing		Model/Series 757-251		Serial Number 26497	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 194	Certified Max Gross Wt.	228500 LBS	Number of Engines: 2	
Engine Type: Turbo Fan	Engine Manufacturer: Pratt & Whitney	Model/Series: PW 2037	Rated Power: 37500 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 06/2001	Time Since Last Inspection 5188 Hours	Airframe Total Time 5188 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner NORTHWEST AIRLINES INC		Street Address 5101 Northwest DR C78960			
		City St. Paul	State MN	Zip Code 55111	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code: NWAA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Flag Carrier/Domestic					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger/Cargo					
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**First Pilot Information**

Name On File	City On File	State On File	Date of Birth	Age 53
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review? 03/2002
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 09/2002
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	13233	1205								
Pilot In Command(PIC)	13199	1205								
Instructor										
Last 90 Days	219	219								
Last 30 Days	79	79								
Last 24 Hours	6	6								

Seatbelt Used?	Shoulder Harness Used?	Toxicology Performed? No	Second Pilot? No
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier LGA	Departure Time	Time Zone EST
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Destination Minneapolis	State MN	Airport Identifier MSP	
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Type of Clearance: None

Type of Airspace: Class B

**Weather Information**

Source of Briefing: Unknown

Method of Briefing: Unknown

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**Weather Information**

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
LGA	0651	EST	22 Ft. MSL	0 NM	0 Deg. Mag.

Sky/Lowest Cloud Condition: Few 15000 Ft. AGL Condition of Light: Day

Lowest Ceiling: Broken 25000 Ft. AGL Visibility: 10 SM Altimeter: 29.92 "Hg

Temperature: -7 °C Dew Point: -13 °C Wind Direction: 230 Density Altitude: Ft.

Wind Speed: 5 Gusts: Weather Conditions at Accident Site: Visual Conditions

Visibility (RVR): Ft. Visibility (RVV) SM Intensity of Precipitation:

Restrictions to Visibility: None


Type of Precipitation: None

**Accident Information**

Aircraft Damage: Substantial Aircraft Fire: None Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				1	1
Other Ground		1	6		7
- GRAND TOTAL -		1	6	1	8

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Administrative Information

Investigator-In-Charge (IIC)

Luke Schiada

Additional Persons Participating in This Accident/Incident Investigation:

T.C. Chan  
FAA FSDO-15  
Garden City, NY

Patrick Schmitz  
Northwest Airlines  
St. Paul, MN

Gus Zervas  
Aircraft Mechanic Fraternal Association (AMFA)  
Jamaica, NY