



National Transportation Safety Board Aviation Incident Final Report

Location:	Denver, CO	Incident Number:	DEN041A050B
Date & Time:	03/05/2004, 2025 MST	Registration:	N482UA
Aircraft:	Airbus Industrie A320-232	Aircraft Damage:	Minor
Defining Event:		Injuries:	136 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

The captain on the United A320 said that during their pushback, a TED A320 was being pushed back at an angle from its gate toward their position. The captain said he relayed his concern to the ground crew, but did not receive a clear response. As the TED A320 approached, two persons from their push crew ran out, "apparently to get a better view. Both airplanes were finally stopped in close proximity. We were positioned to the east of our push line, toward the other aircraft." The captain said that he requested that his tug remain in place in case they had to return to the gate for a sick passenger. When it was determined the passenger could fly, they started engines and released the pushback crew. He said the crew disconnected and they received a salute and a release from guidance for a left turn out. The captain said the TED A320 was still connected to its tug and one of its ground crew was standing to the left front of the airplane facing aft. "He was looking toward us and holding his right hand overhead, and with his left arm out and slightly raised, indicating the wingtip clearance distance." The captain said, "I taxied slowly forward at idle thrust and eased toward the left." After a short distance, the wingtips collided causing minor damage to both airplanes. The United first officer said both he and the captain looked at a ground crew member standing in front and between the two airplanes, looking at us with wand raised and other arm held out horizontally indicating wing clearance. I called for taxi and we were cleared for a left turn out. With wing man guidance and a visual check I told the captain we were cleared on the right. We started to move and I glanced forward. When I looked back out to the right, the wing walker was gone, and then the wingtips made contact. One of the ground crew members on the TED A320 said he was wing walking for the airplane on the first officer's side. Another ground crew member was on the captain's side of the TED A320. The first ground crew member said the other ground crew member stopped the pushback. He said he went around to see what was happening. As he did, the first ground crew member saw the wings of the two airplanes "about 20 to 30 feet apart." The first ground crew member said he looked at the first officer on the United A320 and gave him "the hold sign." He said he then went to the tug operator to discuss the position of the airplane. As he was talking with the tug operator, the United A320 proceeded to move and clipped the wing of the TED A320. United Airlines pushback procedures for Gates A46 and A48 at the Denver International Airport cited, "The coordination of the pushback must include ... verbal agreement between gate crews ... on which aircraft is

being moved first, [and] continual visual observance of the clearance between aircraft ..."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: the failure of the other flight crew to maintain clearance from the airplane and the ground crews failure to follow proper pushback procedures.

Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: STANDING

Findings

1. (C) CLEARANCE - NOT MAINTAINED - FLIGHTCREW OF OTHER AIRCRAFT
2. (C) PROCEDURES/DIRECTIVES - IMPROPER - GROUND PERSONNEL

Factual Information

SEE FACTUAL NARRATIVE DEN04IA050A.

Pilot Information

Certificate:	Airline Transport	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/27/2004
Occupational Pilot:		Last Flight Review or Equivalent:	09/01/2003
Flight Time:	5814 hours (Total, all aircraft), 1806 hours (Total, this make and model)		

Co-Pilot Information

Certificate:	Airline Transport	Age:	39, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	05/26/2004
Occupational Pilot:		Last Flight Review or Equivalent:	01/01/2003
Flight Time:	4401 hours (Total, all aircraft), 1490 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Airbus Industrie	Registration:	N482UA
Model/Series:	A320-232	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	1584
Landing Gear Type:	Retractable - Tricycle	Seats:	145
Date/Type of Last Inspection:	05/15/2002, Continuous Airworthiness	Certified Max Gross Wt.:	169750 lbs
Time Since Last Inspection:		Engines:	2 Turbo Jet
Airframe Total Time:		Engine Manufacturer:	International Aero Engines
ELT:	Not installed	Engine Model/Series:	V2500
Registered Owner:	Wells Fargo Bank Northwest NA Trust	Rated Power:	25000 lbs
Operator:	Wells Fargo Bank Northwest NA Trust	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:	TED	Operator Designator Code:	UALA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night
Observation Facility, Elevation:	DEN, 5431 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1953 MST	Direction from Accident Site:	180°
Lowest Cloud Condition:	Few / 1600 ft agl	Visibility	2 Miles
Lowest Ceiling:	Broken / 2600 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.63 inches Hg	Temperature/Dew Point:	-1°C / -2°C
Precipitation and Obscuration:			
Departure Point:	Denver, CO (DEN)	Type of Flight Plan Filed:	IFR
Destination:	Ontario, CA (ONT)	Type of Clearance:	None
Departure Time:	2025 MST	Type of Airspace:	Class B

Airport Information

Airport:	DENVER INTL (DEN)	Runway Surface Type:	Unknown
Airport Elevation:	5431 ft	Runway Surface Condition:	Unknown
Runway Used:	NA	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	6 None	Aircraft Damage:	Minor
Passenger Injuries:	130 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	136 None	Latitude, Longitude:	39.858611, -104.666944

Administrative Information

Investigator In Charge (IIC): David C Bowling **Report Date:** 10/28/2004

Additional Participating Persons: John Stevenson; Federal Aviation Administration; Denver, CO
John McCoy; United Airlines; San Francisco, CA

Publish Date:

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 pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).