
Ground collision between an Airbus A330 and DHC-8-202 at Portland, August 29, 2005

Micro-summary: This Airbus A330 collided with a Bombardier DHC-8-202 on the ground.


Event Date: 2005-08-29 at 1409 PDT

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

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

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		NTSB ID: SEA05LA184A		Aircraft Registration Number: N855NW	
		Occurrence Date: 08/29/2005		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Portland	State OR	Zip Code 97218	Local Time 1409	Time Zone PDT	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Airbus Industrie		Model/Series A330-223		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On August 29, 2005, approximately 1409 Pacific daylight time, an Airbus A330-223, N855NW, was taxiing for takeoff when it collided with a Bombardier DHC-8-202, N363PH, that was standing with engines operating waiting to be marshaled to its parking spot on the Portland International Airport, Portland, Oregon. There were no injuries to the 3 flight crewmembers, 9 flight attendants, and 235 passengers aboard the Airbus or to the 2 flight crewmembers, 1 flight attendant, and 20 passengers aboard the Bombardier. There was minor damage to the left winglet of the Airbus and substantial damage to the tail of the Bombardier. The Airbus was operated by Northwest Airlines as flight number 5, a 14 CFR Part 121 scheduled international passenger flight from Portland to Narita Airport, Japan. The Bombardier was operated by Horizon Air as flight number 2066, a 14 CFR Part 121 scheduled domestic passenger flight from Medford, Oregon to Portland. Visual meteorological conditions prevailed, and instrument flight rules flight plans were filed for both flights.</p> <p>According to information provided by FAA inspectors who responded to the scene of the accident, the Airbus was taxiing east via Taxiway B to runway 28L for departure. The Bombardier had landed, taxied to the gate area, and was stopped on the ramp located north of Taxiway B waiting to be marshaled to its parking spot. The Bombardier was sitting on a northerly heading, oriented perpendicular to Taxiway B with its tail towards the taxiway. As the Airbus passed behind the Bombardier, the left wingtip of the Airbus struck the tail of the Bombardier. The left winglet of the Airbus was scraped, bent and cracked. The vertical stabilizer, horizontal stabilizer, both elevators, and the rudder on the Bombardier sustained structural damage.</p> <p>Portland Air Traffic Control Tower prepared a chronological summary of the event and a transcript of the communications on the ground control frequency. The chronology indicated that at 1403, the Bombardier contacted ground control stating they had exited the runway at Taxiway B-5 for spot 14, and the ground controller cleared them to taxi to spot 14. At 1405, the Airbus advised they were ready to taxi, and the ground controller instructed them to taxi to runway 28L. The transcript indicated that at 1406:40, the ground controller advised the Airbus to "use caution for a dash eight [Bombardier] pulled up ah on taxiway tango by bravo ahead and to your left should have wing tip clearance there." The Airbus acknowledged the transmission. At 1408:58, the unidentified transmission, "hey ah northwest are you (unintelligible)" was made. At 1412:45, the Airbus advised the ground controller that they had hit the Bombardier.</p> <p>During an interview conducted by FAA inspectors, the captain of the Bombardier reported that the flight's landing and taxi in were normal. He further reported that the flight was instructed to park in spot 14, and he held on the ramp short of the spot awaiting a marshaler to direct him into the parking spot. While waiting to be marshaled, the captain heard the ground controller direct the Airbus to taxi behind his airplane. He then taxied his airplane "as far forward as possible but did not cross the access road due to the missing marshaler." The captain reported that the Bombardier was stopped when the Airbus passed behind it. Just prior to the impact, the captain</p>					
FACTUAL REPORT - AVIATION					

National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: SEA05LA184A

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Occurrence Type: Accident


Narrative (Continued)

attempted to contact the ground controller, but the impact pulled his hand away from the radio transmit switch. Following the event, the flight crew shut down the engines, and the passengers exited the Bombardier and walked to the terminal. There was no emergency evacuation.

According to a written statement submitted by the captain of the Airbus, the flight was cleared to taxi to the runway, and the ground controller commented that the flight should "not have a problem" getting past the Bombardier that was clear of the taxiway on the ramp. The captain reported that the tail of the Bombardier "appeared to be 20-30 feet outside the taxi line" and that he was "not comfortable" with the Bombardier's position. As the Airbus approached the Bombardier, the Bombardier "moved forward about another 20-30 feet perpendicularly away from the yellow taxiway edge line." The captain asked the augmenting captain seated in the jump seat if it looked like they would clear the Bombardier, and the augmenting captain got out of his seat and looked out the left window. The augmenting captain told the captain that it looked like he would have 10-20 feet of clearance. The captain reported that he also looked at the left wingtip and thought there was adequate clearance. According to the captain, the nose wheel of the Airbus was slightly right of the taxiway centerline when he passed behind the Bombardier. The captain felt a "shudder" and stopped the airplane. Following the event, the Airbus taxied back to the gate, and the passengers de-planed. Written statements submitted by the first officer and the augmenting captain of the Airbus collaborated the captain's statement.

When FAA inspectors reached the scene, the Airbus was parked at the gate, and the Bombardier had not been moved since the collision. FAA inspectors measured the distance between the Bombardier's nose wheel and the centerline of Taxiway B as approximately 150 feet. According to information provided by Horizon Air, the distance from the nose wheel to the tip of the Bombardier's tail was approximately 67 feet. This placed the tip of the Bombardier's tail approximately 83 feet from the centerline of Taxiway B. According to information provided by Northwest Airlines, the wingspan of the Airbus was 197 feet 10 inches. With the nose wheel of the Airbus on the centerline of the taxiway, the tip of the left wing would have been located 98 feet 10 inches left of the centerline.

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: SEA05LA184A			
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Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
Portland International	PDX	30 Ft. MSL	NA		
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach: NONE					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Airbus Industrie		A330-223		0621	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 259	Certified Max Gross Wt.	513000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	Pratt & Whitney	PW-4168A			
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
	08/2005	0 Hours	4125 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated? No	ELT Aided in Locating Accident Site? No			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
Northwest Airlines		5101 Northwest Egan Drive			
		City	State	Zip Code	
		Egan	MN	55111	
Operator of Aircraft		Street Address			
Same as Reg'd Aircraft Owner		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; International; Passenger Only					
FACTUAL REPORT - AVIATION					

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First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 52
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Sex: M	Seat Occupied: Left	Principal Profession: Occupational Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; Flight Engineer

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft?	Current Biennial Flight Review? 06/2005
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Medical Cert.: Class 1	Medical Cert. Status: With Waivers/Limitations	Date of Last Medical Exam: 06/2005
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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	15000	50								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	202									
Last 30 Days	72									
Last 24 Hours	0									

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

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier PDX	Departure Time	Time Zone PDT
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Destination Narita	State	Airport Identifier NRT	
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Type of Clearance: Unknown

Type of Airspace: Unknown

Weather Information

Source of Briefing: Company

Method of Briefing:

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
PDX	1355	PDT	30 Ft. MSL	NM	Deg. Mag.

Sky/Lowest Cloud Condition: Scattered 4100 Ft. AGL Condition of Light: Day

Lowest Ceiling: Broken 6500 Ft. AGL Visibility: 10 SM Altimeter: 30.04 "Hg

Temperature: 19 °C Dew Point: 13 °C Wind Direction: 30 Density Altitude: Ft.

Wind Speed: 7 Gusts: Weather Conditions at Accident Site: Visual Conditions

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

Restrictions to Visibility: Thunderstorm - Unknown Precipitation

Type of Precipitation:

Accident Information

Aircraft Damage: Minor Aircraft Fire: None Aircraft Explosion: None

Classification:

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants				9	9
Other Crew				1	1
Passengers				235	235
- TOTAL ABOARD -				247	247
Other Ground					
- GRAND TOTAL -				247	247

National Transportation Safety Board

FACTUAL REPORT

AVIATION



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Occurrence Date: 08/29/2005

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Georgia R. Struhsaker

Additional Persons Participating in This Accident/Incident Investigation:

Dan Seaton
FAA FSDO
Hillsboro, OR