



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Port Heiden, Alaska	Accident Number:	ANC08LA059
Date & Time:	April 30, 2008, 09:45 Local	Registration:	N590AK
Aircraft:	Cessna 560XL	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	6 None
Flight Conducted Under:	Part 91: General aviation - Executive/Corporate		

Analysis

The flightcrew was landing a twin-engine turboprop airplane on Runway 23, a 5,000-foot long, by 100-foot wide, gravel runway, which required a correction for right crosswind. The captain said that during touchdown he inadvertently applied a small amount of left rudder pedal input to correct for a right crosswind as the nose wheel touched down. The airplane veered sharply to the left and went off the left side of the runway. The left main landing gear collapsed, and the left wing struck the runway. The airplane sustained substantial damage to the left wing and fuselage. The captain reported that there were no preaccident mechanical anomalies with the airplane. At the time of the accident, winds were reported to be 320 degrees, at 12 knots. The captain noted that the accident might have been prevented if the airplane had a nose wheel disconnect option.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flying pilot's failure to maintain directional control while landing in a crosswind. A factor contributing to the accident was a crosswind.

Findings

Environmental issues	Crosswind - Contributed to outcome
Aircraft	Rudder control system - Incorrect use/operation

Factual Information

History of Flight

Landing-flare/touchdown	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Landing gear collapse

On April 30, 2008, about 0945 Alaska daylight time, a Cessna Citation 560XL airplane, N590AK, sustained substantial damage while landing at the Port Heiden Airport, Port Heiden, Alaska. The airplane was being operated by AT&T Alascom, Anchorage, Alaska, as an instrument flight rules (IFR) corporate flight under Title 14, CFR Part 91, when the accident occurred. Of the six people aboard, there were no injuries to the two airline transport certificated pilots, or the four passengers. The flight originated at the Ted Stevens Anchorage International Airport, Anchorage, Alaska, about 0820, and an instrument flight plan had been filed.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on April 30, the captain noted that the purpose of the flight was to transport a crew of telecommunications technicians to Port Heiden. He stated that his approach to runway 23 required a correction for a right crosswind, and that the initial touchdown on the 5,000-foot long by 100-foot wide gravel runway was uneventful. He said that as he lowered the nose of the airplane he continued to apply a small amount of left rudder pedal input to correct for the crosswind as the nose wheel touched down. As soon as the nose wheel touched the runway, the airplane veered sharply to the left, and went off the left side of the runway. The left main landing gear collapsed, and the left wing struck the runway. The airplane sustained substantial damage to the left wing and fuselage.

The captain reported that there were no preaccident mechanical anomalies with the airplane.

At 0936, an automated weather observing system (AWOS) at Port Heiden was reporting, in part: Wind, 320 degrees at 12 knots; visibility, 10 statute miles; clouds and sky condition, 600 feet few; temperature, 30 degrees F; dew point, 28 degrees F; altimeter, 29.94 inHg.

The Cockpit Voice Recorder (CVR) was removed from the airplane and sent to the NTSB vehicle recorder laboratory in Washington, DC. A Safety Board aerospace engineer reviewed the recorded data, and determined that the audio did not offer any additional information that had not already been obtained from the flightcrew. No CVR listening group was convened, and no CVR transcript was prepared. A summary of key events of the accident flight is included in the public docket for this accident.

The accident airplane was equipped with a nose wheel-mounted gravel kit. In the recommendation part of his written report, the captain noted that the accident might have

been prevented if the Citation XL was outfitted with a nose wheel disconnect option, similar to that on a Citation V. The captain stated, in part: "Without a nose wheel disconnect, slight rudder/aileron deflection moves the nose wheel slightly, as happens when landing with a crosswind. Even small nose wheel deflection is magnified when landing on gravel, causing uncommanded sharp turning forces."

The Safety Board released the CVR to the owner on November 18, 2008. No parts or components of the airplane were retained by the Safety Board.

Pilot Information

Certificate:	Airline transport	Age:	59, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	December 27, 2007
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 24, 2008
Flight Time:	26000 hours (Total, all aircraft), 42 hours (Total, this make and model), 22000 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Airline transport	Age:	45, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	July 27, 2007
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 25, 2008
Flight Time:	6823 hours (Total, all aircraft), 49 hours (Total, this make and model), 3525 hours (Pilot In Command, all aircraft), 75 hours (Last 90 days, all aircraft), 37 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N590AK
Model/Series:	560XL	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	560-5038
Landing Gear Type:	Retractable - Tricycle	Seats:	13
Date/Type of Last Inspection:	April 3, 2008 Continuous airworthiness	Certified Max Gross Wt.:	20200 lbs
Time Since Last Inspection:	89 Hrs	Engines:	2 Turbo fan
Airframe Total Time:	5069 Hrs at time of accident	Engine Manufacturer:	P&W Canada
ELT:	Installed, not activated	Engine Model/Series:	PW545 Series
Registered Owner:	CITATION 560XL-5038 LLC	Rated Power:	3804 Lbs thrust
Operator:	AT&T Alascom, affiliate of AT&T Management Service	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PAPH,95 ft msl	Distance from Accident Site:	
Observation Time:	09:36 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 600 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.94 inches Hg	Temperature/Dew Point:	-1°C / -2°C
Precipitation and Obscuration:			
Departure Point:	ANCHORAGE, AK (ANC)	Type of Flight Plan Filed:	IFR
Destination:	Port Heiden, AK (PTH)	Type of Clearance:	
Departure Time:	08:20 Local	Type of Airspace:	

Airport Information

Airport:	Port Heiden PAPH	Runway Surface Type:	Gravel
Airport Elevation:	95 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	Visual
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	6 None	Latitude, Longitude:	56.95,-158

Administrative Information

Investigator In Charge (IIC):	Johnson, Clinton
Additional Participating Persons:	Richard M Ruess; Anchorage FSDO; Anchorage, AK
Original Publish Date:	December 11, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=67914

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).