



# Aviation Investigation Final Report

<b>Location:</b>	Nanwalek, Alaska	<b>Accident Number:</b>	ANC10LA021
<b>Date &amp; Time:</b>	March 5, 2010, 16:30 Local	<b>Registration:</b>	N734JM
<b>Aircraft:</b>	Cessna U206G	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Runway excursion	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Scheduled		

## Analysis

Prior to touchdown on the snow and ice covered gravel runway with 850 feet of usable length, the pilot reported that the airplane floated a little, but the touchdown point and touchdown were normal. When he applied the brakes, he indicated that there was very little to no braking action. The airplane slid towards the right while in a left yaw, which he was able to correct when the braking action improved. The airplane continued to the end of the runway and impacted a snowbank. The pilot reported there were no preimpact mechanical problems with the airplane. He noted that he walked the runway after the accident, and determined that the braking action would have been slightly better had he landed in the opposite direction. The US Department of Transportation's Alaska Airport Supplement indicates that the runway should be visually checked for condition before use.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's decision to land on a short, icy runway with poor braking action, resulting in a runway overrun/excursion and collision with a snowbank.

## Findings

<b>Aircraft</b>	Landing distance - Capability exceeded
<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Environmental issues</b>	Snow/slush/ice covered surface - Contributed to outcome

# Factual Information

## History of Flight

Landing-landing roll	Runway excursion (Defining event)
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On March 5, 2010, about 1630 Alaska standard time, a Cessna U206G, N734JM, registered to and operated by Smokey Bay Air, Inc., Homer, Alaska, collided with a snowbank during the landing roll at Nanwalek Airport, Nanwalek, Alaska. Visual meteorological conditions prevailed, and a company visual flight rules (VFR) flight plan was filed for the 14 Code of Federal Regulations (CFR) Part 135, scheduled domestic passenger flight from the Homer Airport, Homer. The airplane sustained substantial damage to the left wing. The airline transport certificated pilot and the sole passenger were not injured. The flight originated from Homer about 1600.

The pilot stated that the approach to runway 01 was normal, but the airplane floated a little before touchdown on the snow and ice covered gravel runway. The touchdown and touchdown point were normal, and during the landing roll he retracted the flaps and applied the brakes but later reported the braking action as "...very little to no braking action." The airplane slid towards the right while in a left yaw, and he regained some braking action, correcting the left yaw. The airplane continued to the end of the runway and impacted a snowbank with the right main landing gear, causing the airplane to yaw to the right. The left main landing gear then contacted the snowbank, causing the left wing to drop and strike a snowbank. The pilot reported there was no preimpact mechanical failure or malfunction of the airplane or of its systems. He later walked the runway, and determined that the braking action would have been slightly better had he landed the other direction.

The pilot, age 29, holds commercial, airline transport, and flight instructor pilot certificates. At the commercial level, he has airplane single engine land and sea ratings. His last first class medical certificate with no medical restrictions was issued October 29, 2009.

The submitted NTSB Pilot/Operator Aircraft Accident/Incident Report indicated the pilots' total time in all aircraft was 5,000 hours, and he listed having 1,500 hours in the accident make and model airplane.

According to the operator's Director of Maintenance, six stringers in the left wing and the outer rib were damaged, requiring removal and replacement.

The Nanwalek Airport is equipped with one runway designated 01/19. The US Department of Transportation's Alaska Airport Supplement indicates the gravel runway is 1,850 feet long and 50 feet wide, with the north 1,000 feet closed indefinitely. The supplement also notes that the approach to runway 01 is restricted by an abrupt mountain face located .21 nautical mile from

the approach end, and the runway is not routinely maintained. The supplement states that the runway should be visually inspected for condition before use.

A surface observation weather report taken at Seldovia Airport at 1619, or approximately 11 minutes before the accident, indicates the wind was calm and the visibility was 6 statute miles with light rain and mist. A ceiling of broken clouds existed at 2,500 feet and overcast clouds existed at 3,100 feet. The temperature and dew point were both reported as 01 degrees Celsius. The altimeter setting was 28.69 inches of Mercury. The Seldovia Airport is located approximately 9 nautical miles and 028 degrees magnetic from the accident airport.

### Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Flight instructor	<b>Age:</b>	29, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	October 29, 2009
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	November 5, 2009
<b>Flight Time:</b>	5000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 4800 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N734JM
<b>Model/Series:</b>	U206G	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	U20604839
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	March 3, 2010 AAIP	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	15676 Hrs as of last inspection	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO 520 SERIES
<b>Registered Owner:</b>	SMOKEY BAY AIR INC	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>	SMOKEY BAY AIR INC	<b>Operating Certificate(s) Held:</b>	Commuter air carrier (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	X53A

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PASO, 29 ft msl	<b>Distance from Accident Site:</b>	9 Nautical Miles
<b>Observation Time:</b>	16:19 Local	<b>Direction from Accident Site:</b>	31°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	6 miles
<b>Lowest Ceiling:</b>	Broken / 2500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	28.69 inches Hg	<b>Temperature/Dew Point:</b>	1°C / 1°C
<b>Precipitation and Obscuration:</b>	Light - None - Rain		
<b>Departure Point:</b>	Homer, AK (PAHO)	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>	Nanwalek, AK (KEB)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	16:00 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Nanwalek Airport KEB	<b>Runway Surface Type:</b>	Gravel
<b>Airport Elevation:</b>	27 ft msl	<b>Runway Surface Condition:</b>	Holes;Ice;Slush covered;Snow;Wet
<b>Runway Used:</b>	01	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	850 ft / 50 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	59.353332,-151.930557(est)

## Administrative Information

**Investigator In Charge (IIC):** Monville, Timothy

**Additional Participating Persons:** William Bohman; FAA/FSDO; Anchorage, AK

**Original Publish Date:** April 28, 2011

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=75469>

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