

National Transportation Safety Board Aviation Accident Final Report

Location: Kwigillingok, AK Accident Number: ANC12LA002

Date & Time: 11/07/2011, 1830 AST Registration: N6314H

Aircraft: CESSNA 207A Aircraft Damage: Substantial

Defining Event: Loss of control in flight **Injuries:** 3 Minor, 3 None

Flight Conducted Under: Part 135: Air Taxi & Commuter - Scheduled

Analysis

The pilot departed on a scheduled commuter flight at night from an unlit, rough and uneven snow-covered runway with five passengers and baggage. During the takeoff roll, the airplane bounced twice and became airborne, but it failed to climb. As the airplane neared the departure end of the runway, it began to veer to the left, and the pilot applied full right aileron, but the airplane continued to the left as it passed over the runway threshold. The airplane subsequently settled into an area of snow and tundra-covered terrain about 100 yards south of the runway threshold and nosed over.

Official sunset on the day of the accident was 48 minutes before the accident, and the end of civil twilight was one minute before the accident. The Federal Aviation Administration's (FAA) Airport/Facility Directory, Alaska Supplement listing for the airport, includes the following notation: "Airport Remarks - Unattended. Night operations prohibited, except rotary wing aircraft. Runway condition not monitored, recommend visual inspection prior to using. Safety areas eroded and soft. Windsock unreliable." A postaccident examination of the airplane and engine revealed no mechanical anomalies that would have precluded normal operation.

Given the lack of mechanical deficiencies with the airplane's engine or flight controls, it is likely the pilot failed to maintain control during the takeoff roll and initial climb after takeoff.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to abort the takeoff when he realized the airplane could not attain sufficient takeoff and climb performance and his improper decision to depart from an airport where night operations were prohibited.

Findings

Aircraft	Climb rate - Not attained/maintained (Cause)
Personnel issues	Decision making/judgment - Pilot (Cause) Aircraft control - Pilot (Cause) Incorrect action performance - Pilot (Cause)
Environmental issues	Dark - Contributed to outcome

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Factual Information

On November 7, 2011, about 1830 Alaska standard time (AST), a Cessna 207 airplane, N6314H, sustained substantial damage during a collision with snow-covered terrain following a loss of control shortly after takeoff from Runway 15 at the Kwigillingok Airport, Kwigillingok, Alaska. The airplane was being operated as Flight 166, by Hageland Aviation Services, Inc., dba ERA Alaska, Anchorage, Alaska, as a visual flight rules (VFR) scheduled commuter flight under the provisions of 14 Code of Federal Regulations (CFR) Part 135. Of the six people aboard, the commercial pilot and two passengers were not injured, and three passengers sustained minor injuries. Night, visual meteorological conditions (VMC) prevailed, and VFR company flight following procedures were in effect. Flight 166 originated in Bethel, Alaska, and it had completed scheduled stops in Kongiganak, Alaska, and Kwigillingok. The accident occurred while returning to Bethel, the flight's final destination for the day.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on November 8, the pilot reported that before departing on Runway 15, an unlighted, rough and uneven 1,840 foot-long, by 30 foot-wide snow-covered runway, he checked the airport windsock, and noted that a correction for a 5 to 10 knot left quartering crosswind would be required. He said that during the takeoff roll, the airplane bounced twice and became airborne, but it failed to climb. As the airplane neared the departure end of the runway, it began to veer to the left. The pilot said he applied full right aileron to correct the veer, but the airplane continued to the left as it passed over the runway threshold. He said that once he knew the airplane was not going to climb, he lowered the flaps in an attempt to cushion the off-airport landing. The airplane subsequently settled into an area of snow, and tundra-covered terrain, about 100 yards south of the runway threshold, and nosed over.

Sunset on the day of the accident was 1742; the end of civil twilight was 1829.

The Federal Aviation Administration's (FAA) Airport/Facility Directory, Alaska Supplement listing for the Kwigillingok Airport, includes the following notation: "Airport Remarks - Unattended. Night operations prohibited, except rotary wing aircraft. Runway condition not monitored, recommend visual inspection prior to using. Safety areas eroded and soft. Windsock unreliable."

In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1) submitted by the operator, the pilot's total aeronautical experience was listed as 1,833 hours, with 349 hours in the accident airplane make and model. The report noted that in the preceding 90 and 30 days prior to the accident, the pilot accrued a total of 390 hours and 107 hours.

According to the operator's chief pilot, the estimated gross weight of the airplane at takeoff was 3,680 pounds, or approximately 120 pounds below the maximum takeoff gross weight of 3,800 pounds.

The closest weather reporting facility was the Kipnuk Airport, Kipnuk, Alaska, about 26 miles west of the accident site. At 1856, an Aviation Routine Weather Report (METAR) was reporting, in part: Wind, 010 degrees (true) at 4 knots; visibility, 10 statute miles.; clouds and

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sky condition, clear; temperature, 19 degrees F; dew point, 18 degrees F; altimeter, 30.14 inches Hg.

A pilot flying a Cessna 208 that departed about 30 minutes before the accident airplane departed, reported wind to be from the east-southeast, at 10 knots, but favoring Runway 15.

The wreckage was recovered from the accident site and transported to Alaska Claims Services, Inc., in Wasilla, Alaska.

On January 26, 2012, a wreckage examination and layout was done under the direction of the NTSB IIC. Also present were air safety investigators from Continental Motors, Cessna Aircraft, the FAA, and the director of safety for Hageland Aviation Services. There were no preaccident mechanical problems discovered with the airplane's engine or flight controls.

History of Flight

Initial climb	Loss of control in flight (Defining event)
	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial	Age:	27, 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:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last FAA Medical Exam:	04/15/2011
Occupational Pilot:	Yes Last Flight Review or Equivalent:		
Flight Time:	1833 hours (Total, all aircraft), 349 hours (Total, this make and model), 349 hours (Pilot In Command, all aircraft), 390 hours (Last 90 days, all aircraft), 107 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N6314H
Model/Series:	207A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	20700478
Landing Gear Type:	Tricycle	Seats:	7
Date/Type of Last Inspection:	AAIP	Certified Max Gross Wt.:	3800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONT MOTOR
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	IO 520 SERIES
Registered Owner:	ICECAP LLC TRUSTEE	Rated Power:	300 hp
Operator:	Hageland Aviation Services	Operating Certificate(s) Held:	Commuter Air Carrier (135)
Operator Does Business As:	ERA ALASKA	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	PAKI, 11 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	1856 AST	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	-7°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Kwigillingok, AK (GGV)	Type of Flight Plan Filed:	Company VFR
Destination:	Bethel, AK (BET)	Type of Clearance:	None
Departure Time:	1830 AST	Type of Airspace:	

Airport Information

Airport:	Kwigillingok (GGV)	Runway Surface Type:	Dirt; Gravel
Airport Elevation:	18 ft	Runway Surface Condition:	Snow
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	1840 ft / 30 ft	VFR Approach/Landing:	None

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Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 Minor, 2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Minor, 3 None	Latitude, Longitude:	59.872500, -163.167778 (est)

Administrative Information

Investigator In Charge (IIC):	Clinton O Johnson	Report Date:	11/26/2012
Additional Participating Persons:	Matt Waln; Federal Aviation Administration - Operations; Anchorage, AK		
Publish Date:	11/27/2012		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/docl	KList.cfm?mKey=820	<u>065</u>

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.

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