



# Aviation Investigation Final Report

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<b>Location:</b>	Fairbanks, Alaska	<b>Accident Number:</b>	GAA16CA503
<b>Date &amp; Time:</b>	September 21, 2016, 17:45 Local	<b>Registration:</b>	N5892T
<b>Aircraft:</b>	Cessna 185	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of lift	<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

According to the pilot of the tailwheel-equipped airplane, he and his passenger waited most of the day for the 30-knot wind to subside before departing the 1,200-ft-long dirt and grass airstrip.

He reported that the wind velocity had decreased to 10 knots and that he had calculated that, with the 10-knot headwind, the airplane would rotate about 700 ft down the runway. The pilot monitored the wind via ribbons placed at various locations around the airstrip. During takeoff, the airplane rotated about 700 ft down the runway and climbed to about 8 ft above the ground. The pilot stated that it "then it felt like we lost our lift." The pilot recalled that there wasn't enough runway remaining to land and that there was a brush-covered bank at the departure end of the runway. The airplane started to settle to the ground, and although operating at full power and on the cusp of a stall, they cleared the bank. Beyond the bank, the pilot landed the airplane on a short sand bar, but the airplane overran the sand bar and impacted several large rocks.

After exiting the airplane, the pilot noticed that he had departed with an 8- to 10-knot tailwind. The airplane sustained substantial damage to the left-wing strut, the aileron, the horizontal stabilizer and the elevator.

The pilot reported that there were no mechanical malfunctions or anomalies with the airframe or engine that would have prevented normal operation.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to recognize he was taking off with a tailwind and his inadequate compensation for taking off with a tailwind, which led to the airplane's failure to attain a climb and a subsequent forced landing.

## Findings

<b>Personnel issues</b>	Identification/recognition - Pilot
<b>Environmental issues</b>	Tailwind - Effect on equipment
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Tailwind - Response/compensation
<b>Aircraft</b>	Climb rate - Not attained/maintained
<b>Environmental issues</b>	Debris/dirt/foreign object - Contributed to outcome

## Factual Information

### History of Flight

<b>Takeoff</b>	Other weather encounter
<b>Takeoff</b>	Loss of lift (Defining event)
<b>Initial climb</b>	Attempted remediation/recovery
<b>Landing-landing roll</b>	Collision with terr/obj (non-CFIT)
<b>Landing</b>	Off-field or emergency landing

### Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	49, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Waiver time limited special	<b>Last FAA Medical Exam:</b>	April 1, 2016
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 15, 2016
<b>Flight Time:</b>	(Estimated) 3064 hours (Total, all aircraft), 44 hours (Total, this make and model), 2779.1 hours (Pilot In Command, all aircraft), 295 hours (Last 90 days, all aircraft), 56 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Passenger Information

<b>Certificate:</b>		<b>Age:</b>	Male
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N5892T
<b>Model/Series:</b>	185 D	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1964	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	185-0792
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	March 4, 2016 Annual	<b>Certified Max Gross Wt.:</b>	3200 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5916.3 Hrs at time of accident	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	IO-470F
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Dusk
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Delta Junction, AK (PVT)	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	Delta Junction, AK (PVT)	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<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>	1 Minor, 1 None	<b>Latitude, Longitude:</b>	63.482776,-146.284729(est)

## Administrative Information

**Investigator In Charge (IIC):** Hicks, Michael

**Additional Participating Persons:**

**Original Publish Date:** April 10, 2017

**Last Revision Date:**

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

**Note:** This accident report documents the factual circumstances of this accident as described to the NTSB.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=94064>

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