



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	WULIK RIVER, AK	<b>Accident Number:</b>	ANC93LA168
<b>Date &amp; Time:</b>	09/02/1993, 2230 AKD	<b>Registration:</b>	N2384D
<b>Aircraft:</b>	CESSNA 170B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

THE PILOT SAID WHILE ATTEMPTING TO TAKEOFF FROM A MOUNTAIN RIDGE, THE LEFT MAIN WHEEL ENTERED A DEPRESSION AND HE HAD TO USE HARDER THAN NORMAL CONTROL FORCES TO KEEP THE AIRPLANE ALIGNED WITH THE TAKEOFF PATH. WHEN THE AIRPLANE CAME OUT OF THE DEPRESSION, IT BOUNCED INTO THE AIR AND BECAUSE OF THE LEFT QUARTERING HEADWIND, IT CAME BACK DOWN ON THE RIGHT MAIN WHEEL AND THE RIGHT WING. THE AIRPLANE THEN SPUN AROUND CLOCKWISE ABOUT 180 DEGREES AND HIT ON THE NOSE, THEN THE LEFT WING. BOTH MAIN LANDING GEAR BOXES WERE TORN OUT OF THE FUSELAGE, WHICH WAS ALSO DAMAGED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO MAINTAIN CONTROL OF THE AIRPLANE. A FACTOR WAS THE CROSSWIND.

## Findings

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: TAKEOFF

### Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - CROSSWIND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF

## Factual Information

On September 2, 1993, at 2230 Alaska daylight time, the pilot of a wheel equipped Cessna 170 airplane, N2384D, lost control and dragged a wing while attempting to takeoff from a mountain ridge near the Wulik River, approximately 80 miles northwest of Kotzebue, Alaska. The airline transport pilot, the sole occupant, was not injured, and the airplane was substantially damaged. The personal flight, operating under 14 CFR Part 91, was destined for another remote landing area located about 1 mile away from the accident site. Visual meteorological conditions existed, and a VFR flight plan was filed.

When the pilot was contacted by telephone on September 7, 1993, he stated the following, in part: "During the takeoff roll, the left main wheel got into a depression and I had to use harder than normal control forces to keep the airplane aligned with the takeoff path. When the airplane came out of the depression, it bounced into the air and because of the left quartering headwind, it came back down on the right main wheel and the right wing. The airplane then spun around clockwise about 180 degrees and hit on the nose, then the left wing. Both main landing gear boxes were torn out of the fuselage, which was also damaged."

The pilot's statement on the accident report (NTSB Form 6120.1/2) varies considerably from his telephone statement on September 7, 1993.

## Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	32, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<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 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	06/01/1993
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	4602 hours (Total, all aircraft), 140 hours (Total, this make and model), 4555 hours (Pilot In Command, all aircraft), 320 hours (Last 90 days, all aircraft), 120 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N2384D
Model/Series:	170B 170B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	20536
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	03/20/1993, Annual	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:	49 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2548 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed	Engine Model/Series:	O-300A
Registered Owner:	ANDERSON, THOMAS M.	Rated Power:	145 hp
Operator:	ANDERSON, THOMAS M.	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 5000 ft agl	Visibility	50 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	20 knots / 25 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	2° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	VFR
Destination:		Type of Clearance:	None
Departure Time:	2230 ADT	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC): ROY C DAW Report Date: 06/30/1994

Additional Participating Persons: PHILIP B EVANS; FAIRBANKS, AK

Publish Date:

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at [pubinq@ntsb.gov](mailto:pubinq@ntsb.gov), or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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](#).