



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	NIKISKI, AK	<b>Accident Number:</b>	ANC96LA112
<b>Date &amp; Time:</b>	08/02/1996, 2000 AKD	<b>Registration:</b>	N78108
<b>Aircraft:</b>	Cessna 172K	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The pilot reported the airplane was approximately 50 to 75 feet above the runway, just entering the landing flare, when the airplane suddenly dropped and landed hard. The airplane bounced twice, collapsing the nose gear and the left main landing gear, and then nosed over. The pilot estimated the surface wind as a quartering headwind at 10 to 15 knots. He believes that he had sufficient airspeed prior to the sudden sinking of the airplane, and thinks he may have encountered windshear.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate compensation for wind conditions. A factor was the windshear.

## Findings

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (F) WEATHER CONDITION - WINDSHEAR  
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Occurrence #2: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

2. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND  
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Occurrence #3: NOSE GEAR COLLAPSED  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

3. LANDING GEAR, NOSE GEAR - OVERLOAD  
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Occurrence #4: NOSE OVER  
Phase of Operation: LANDING

## Factual Information

On August 2, 1996, about 2000 Alaska daylight time, a wheel equipped Cessna 172K airplane, N78108, sustained substantial damage while landing at the McGann Industrial airstrip, Nikiski, Alaska. The solo private pilot was not injured. The 14 CFR Part 91 flight operated in visual meteorological conditions without a flight plan. The flight departed Merrill Field, Anchorage, Alaska, about 1900.

During a telephone conversation with the NTSB investigator-in-charge (IIC) on August 5, the pilot stated he was landing to the west with a quartering headwind estimated at 10 to 15 knots. He said he had the appropriate airspeed for the landing approach, but the airplane suddenly dropped 50 to 75 feet and struck the runway. The airplane bounced, landed again hard, and nosed over. The pilot suspects that he encountered a windshear while on final approach. He also stated he believes that the nosegear collapsed during the first bounce, and on the second touchdown, the left main gear collapsed, which allowed the airplane to nose over.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	22, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	02/22/1996
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	200 hours (Total, all aircraft), 159 hours (Total, this make and model), 200 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N78108
Model/Series:	172K 172K	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Utility	Serial Number:	17257485
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	07/02/1996, Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	15 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4127 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-E2D
Registered Owner:	HARLEY HIGHTOWER	Rated Power:	150 hp
Operator:	MATTHEW HIGHTOWER	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:	Clear / 0 ft agl	Visibility	70 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	285°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	18° C
Precipitation and Obscuration:			
Departure Point:	ANCHORAGE, AK (MRI)	Type of Flight Plan Filed:	None
Destination:	(L-3A)	Type of Clearance:	None
Departure Time:	1900 ADT	Type of Airspace:	Class G

## Airport Information

Airport:	MCGANN INDUSTRIAL (L-3A)	Runway Surface Type:	Gravel
Airport Elevation:	100 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	2500 ft / 75 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

## Wreckage and Impact Information

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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	JAMES D LABELLE	<b>Report Date:</b>	02/18/1997
<b>Additional Participating Persons:</b>	P.K. WILLIS; ANCHORAGE, AK		
<b>Publish Date:</b>			
<b>Investigation Docket:</b>	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 <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.ntsbt.gov/pubdms/">http://dms.ntsbt.gov/pubdms/</a> .		

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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](#).