



# Aviation Investigation Final Report

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<b>Location:</b>	Greeley, Colorado	<b>Accident Number:</b>	DEN06LA041
<b>Date &amp; Time:</b>	February 17, 2006, 14:10 Local	<b>Registration:</b>	N7743Y
<b>Aircraft:</b>	Piper PA-30	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot was cleared for the ILS approach to runway 34 (10,000 feet by 100 feet, dry asphalt) and was instructed to change radio frequency to the airport UNICOM. The pilot performed a missed approach, contacted approach control and informed them that he was executing a missed approach for a "no gear indication." The airplane subsequently circled over the airport in an attempt to get the landing gear to come down. Finally, the pilot performed a wheels up landing. During the landing, the airplane's right wing struck a runway sign. The pilot said that about half way to their destination, they heard something vibrate. After 5 minutes the vibration stopped. The pilot said the vibration occurred again later. On the ILS approach, the pilot said the wheels failed to come down. "I advised approach control and said I intended to circle the field and extend the landing gear manually." The pilot said he "was not successful lowering the wheels. They wouldn't budge." The pilot said that airport personnel requested he continue to circle until emergency equipment was in place. "I did, and continued trying to lower the wheels. When the airport people were ready, we landed with the wheels up." The pilot said the temperature en route was "about minus 5 [degrees]." Responders to the airplane reported that it was covered with ice that measured approximately 3/4 inch thick. An examination of the airplane's systems showed no anomalies. The weather at the airport was reported as ceilings 400 broken, 5,500 broken, 7,500 overcast, 1-1/2 mile visibility, temperature 2 degrees Fahrenheit (F), dew point -2 degrees F, winds 040 at 16 knots, and altimeter 30.32 inches.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's flight into adverse weather conditions, the airframe ice, and the wheels up landing. Factors contributing to the accident were the icing conditions, the frozen landing gear, the frozen alternate gear extension system, and the runway sign.

### Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: APPROACH

Findings

1. (C) FLIGHT INTO ADVERSE WEATHER - PERFORMED - PILOT IN COMMAND
2. (C) AIRFRAME - ICE
3. (F) LANDING GEAR - FROZEN
4. REMEDIAL ACTION - ATTEMPTED - PILOT IN COMMAND
5. (F) LANDING GEAR, EMERGENCY EXTENSION ASSEMBLY - FROZEN
6. (F) WEATHER CONDITION - ICING CONDITIONS

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Occurrence #2: WHEELS UP LANDING

Phase of Operation: EMERGENCY LANDING

Findings

7. (C) WHEELS UP LANDING - PERFORMED - PILOT IN COMMAND

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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: EMERGENCY LANDING

Findings

8. (F) OBJECT - AIRPORT SIGN/MARKER

## Factual Information

On February 17, 2006, approximately 1410 mountain standard time, a Piper PA-30, N7743Y, piloted by an airline transport pilot, sustained substantial damage during a wheels up landing at the Greeley-Weld County Airport (GXY), Greeley, Colorado. Instrument meteorological conditions prevailed at the time of the accident. The personal cross-country flight from Sioux City, Iowa (SUX), to GXY was operating on an instrument flight rules flight plan under the provisions of Title 14 CFR Part 91. The pilot sustained minor injuries. The passenger on board the airplane was not injured. The flight originated at 1110 central standard time

The pilot was cleared for the ILS approach to runway 34 (10,000 feet by 100 feet, dry asphalt) and instructed to contact Greeley UNICOM. The pilot performed a missed approach, contacted Denver Approach Control and informed them that he went missed approach for a "no gear indication." The airplane subsequently circled over the airport in an attempt to get the landing gear to come down. Finally, the pilot performed a wheels up landing on runway 34. During the landing, the airplane's right wing struck a runway sign.

The pilot said that about half way to GXY, they heard something vibrate. After 5 minutes the vibration stopped. The pilot said the vibration occurred again later. On the ILS approach into GXY, the pilot said the wheels failed to come down. "I advised approach control and said I intended to circle the field and extend the landing gear manually." The pilot said he "was not successful lowering the wheels. They wouldn't budge." The pilot said that Greeley personnel requested he continue to circle until emergency equipment was in place. "I did, and continued trying to lower the wheels. When the airport people were ready, we landed with the wheels up." The pilot said the temperature en route was "about minus 5 [degrees]."

An examination of the airplane showed that it sustained skin scrapes to the nose gear doors and the bottom fuselage. Both propellers' blades were curled and showed chordwise scratches. The right outboard wing bottom skin showed a triangular-shaped tear, located approximately 3 feet outboard of the right engine nacelle. The tear was approximately 1-foot long, chordwise, and 4-5 inches wide. It began just below the leading edge and ran aft. Several stringers were broken and bent aft in the area of the tear. Flight control continuity was confirmed. A post-accident examination of the landing gear system showed no anomalies.

A witness that assisted in recovering the airplane following the accident reported that the airframe was covered with ice that measured approximately 3/4 inch thick.

At 1355, the weather at GXY was reported as ceilings 400 broken, 5,500 broken, 7,500 overcast, 1-1/2 mile visibility, temperature 2 degrees Fahrenheit (F), dew point -2 degrees F, winds 040 at 16 knots, and altimeter 30.32 inches.

## Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	86, 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>	
<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 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	February 1, 2005
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 1, 2005
<b>Flight Time:</b>	3347 hours (Total, all aircraft), 2257 hours (Total, this make and model), 3030 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N7743Y
<b>Model/Series:</b>	PA-30	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	30-833
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 1, 2005 Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	4887 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-320-B1A
<b>Registered Owner:</b>	Walton Evert Bedinger, Jr.	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	GXY,4697 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	13:55 Local	<b>Direction from Accident Site:</b>	160°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	1.5 miles
<b>Lowest Ceiling:</b>	Broken / 400 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	16 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	40°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.31 inches Hg	<b>Temperature/Dew Point:</b>	-17°C / -19°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Sioux City, IA (SUX )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Greeley, CO (GXY )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	11:10 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Greeley-Weld County GXY	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	4697 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	34	<b>IFR Approach:</b>	ILS
<b>Runway Length/Width:</b>	10000 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## 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>	40.4375,-104.633056

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Bowling, David
<b>Additional Participating Persons:</b>	Gina Moretto; Federal Aviation Administration; Denver, CO
<b>Original Publish Date:</b>	August 29, 2006
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=63258">https://data.ntsb.gov/Docket?ProjectID=63258</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).