



Aviation Investigation Final Report

Location:	POTTER, Nebraska	Accident Number:	CHI96LA196
Date & Time:	June 2, 1996, 08:30 Local	Registration:	N3609V
Aircraft:	Cessna 140	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was on takeoff run when the right landing gear axle broke. It was not possible to maintain directional control and the gear leg dug into the terrain. The airplane ground looped and the tail impacted the terrain. Subsequent examination of the axle revealed that the failure was due to fatigue cracking, but the source of the fatigue was not determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a fatigue fracture of the landing gear axle.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) LANDING GEAR, AXLE - FATIGUE

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

2. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Factual Information

On June 2, 1996, at 0830 mountain daylight time, a Cessna 140, N3609V, sustained substantial damage on takeoff from runway 31 (dry turf private strip), near Potter, Nebraska. The right axle broke and the airplane ground looped. The commercial pilot and one passenger reported no injuries. The personal 14 CFR Part 91 flight was operating in visual meteorological conditions. No flight plan was on file. The flight was originating at the time of the accident with the intended destination of Scottsbluff, Nebraska.

The pilot stated that the airplane was just about to liftoff when the right axle broke and the landing gear leg dug into the terrain. The airplane ground looped and the tail wheel impacted the terrain.

The axle was removed and sent to the NTSB Office of Research and Engineering for examination. The fracture of the axle was found to be indicative of fatigue cracking. No specific determination of the source of the fatigue was determined.

Pilot Information

Certificate:	Commercial	Age:	79, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	January 10, 1996
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	9000 hours (Total, all aircraft), 5000 hours (Total, this make and model), 8150 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N3609V
Model/Series:	140 140	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	14877
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	March 7, 1996 Annual	Certified Max Gross Wt.:	1450 lbs
Time Since Last Inspection:	7 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3436 Hrs	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-200-A
Registered Owner:	LEONARD E. NELSON	Rated Power:	100 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	100 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	2 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:	SCOTTSBLUFF , NE (BFF)	Type of Clearance:	None
Departure Time:	08:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	BAR J LAZY V NONE	Runway Surface Type:	Grass/turf
Airport Elevation:	4570 ft msl	Runway Surface Condition:	Dry
Runway Used:	31	IFR Approach:	None
Runway Length/Width:	2700 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.210765,-103.309082(est)

Administrative Information

Investigator In Charge (IIC): Wilson, Stephen

Additional Participating Persons:

Original Publish Date: December 16, 1996

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=10274>

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