



Aviation Investigation Final Report

Location:	GLENWOOD SPGS, Colorado	Accident Number:	DEN89LA109
Date & Time:	April 17, 1989, 11:10 Local	Registration:	N4127G
Aircraft:	CESSNA 310E	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Ferry		

Analysis

THE PRIVATE PLT/A&P MECHANIC WAS FERRYING AN ACFT TO HIS FBO TO PERFORM AN ANNUAL INSPECTION. DURING FINAL APPROACH TO RWY 32, A 3,300 X 50 FT, ASPHALT RWY, THE PLT SAID HE ENCOUNTERED STRONG TURBULENCE. THE ACFT TOUCHED DOWN 200 FT SHORT OF THE RWY, ON A PAVED HIGHWAY. THE ACFT SLID ONTO THE RWY AND MADE A SLOW LEFT TURN, COMING TO REST 300 FEET LEFT OF THE RWY CENTERLINE, WITH COMPLETE LANDING GEAR COLLAPSE. A POST ACCIDENT INSPECTION SHOWED EVIDENCE THAT THE LEFT TIRE TOUCHED DOWN HARD, AND THE LEFT STRUT MADE SCRAPE MARKS WITHIN 5 FT. THE ACFT BOUNCED BACK INTO THE AIR AND AT THE NEXT TOUCHDOWN, THE LEFT PROPELLER MADE STRIKE MARKS. THE PILOT SAID HE THOUGHT THE ACFT HAD HIT A LOW LEVEL WIND SHEAR ON FINAL. HE ALSO SAID HE THOUGHT THE LEFT AXLE BROKE OFF DUE TO FATIGUE. AN FAA AIRWORTHINESS INSPECTOR EXAMINED THE AXLE AND STATED THAT HE DISCOVERED NO EVIDENCE OF PRE-EXISTING CRACKS OR FATIGUE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE COMPENSATION FOR THE WIND CONDITIONS BY THE PILOT, RESULTING IN A LOSS OF CONTROL OF FINAL APPROACH. CONTRIBUTING TO THE ACCIDENT WAS THE DOWNDRAFT.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: APPROACH

Findings

1. (F) WEATHER CONDITION - DOWNDRAFT

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

2. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND

Occurrence #3: UNDERSHOOT

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (C) FLARE - MISJUDGED - PILOT IN COMMAND

Occurrence #4: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

4. LANDING GEAR, AXLE - OVERLOAD

Factual Information

Pilot Information

Certificate:	Private	Age:	50, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	July 22, 1988
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2631 hours (Total, all aircraft), 13 hours (Total, this make and model), 2538 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N4127G
Model/Series:	310E 310E	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	310M0033
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:	May 3, 1988 Annual	Certified Max Gross Wt.:	4990 lbs
Time Since Last Inspection:	7 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	7500 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-470-D
Registered Owner:	JAMES E. FUOCO	Rated Power:	260 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	90 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	14°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	GRAND JUNCTION , CO (GJT)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	10:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	GLENWOOD SPRINGS GLW	Runway Surface Type:	Asphalt
Airport Elevation:	5920 ft msl	Runway Surface Condition:	Dry
Runway Used:	32	IFR Approach:	None
Runway Length/Width:	3300 ft / 50 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	39.539028,-107.330024(est)

Administrative Information

Investigator In Charge (IIC):	Collins, Robert
Additional Participating Persons:	BRENT ROBINSON; SALT LAKE CITY , UT RICHARD A KLANMAN; SALT LAKE CITY , UT MAX MCARTHUR; SALT LAKE CITY , UT
Original Publish Date:	August 22, 1990
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=17699

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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](#).