



Aviation Investigation Final Report

Location:	BELLINGHAM, Washington	Accident Number:	SEA99LA023
Date & Time:	December 19, 1998, 16:50 Local	Registration:	CGHFD
Aircraft:	Piper PA-34-200	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot noted that he was on approach to the runway and about 30' to 50' above ground when he encountered a wind shear downdraft so severe that all loose things in the cockpit flew up to the ceiling. He believed that he must have been crabbing at the time of touchdown, and the side forces at the time of the landing broke the right main landing gear above the wheel/axle casting. The airplane sustained buckling of the right wing and buckling at the rear of the cabin. Control tower personnel who observed the landing characterized it as a very hard landing. Visual meteorological conditions prevailed at the time of the accident, however winds were at 30 knots, gusting to 41 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A hard landing due to the pilot's failure to maintain a proper descent rate. Factors include gusts and turbulence.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING

Findings

1. (F) WEATHER CONDITION - GUSTS

2. (C) PROPER DESCENT RATE - NOT MAINTAINED - PILOT IN COMMAND
3. (F) WEATHER CONDITION - TURBULENCE

Factual Information

On December 19, 1998, at 1650 Pacific standard time, a Piper PA-34, CGHFD, sustained substantial damage during landing on runway 34 at Bellingham, Washington. The pilot, the sole occupant, was uninjured. Visual meteorological conditions prevailed at the time of the accident, however winds were at 30 knots, gusting to 41 knots. There was no fire, and no report of an ELT actuating.

The pilot stated to FAA inspectors that the aircraft encountered severe low-level wind shear on arrival and landed sideways. In a written statement, he noted that he "was on approach to the runway and about 30' to 50' above ground when he encountered a wind shear downdraft of major proportions, so severe that all loose things in the cockpit flew up to the ceiling...." The pilot believed that he must have been crabbing and the side forces at the time of the landing broke the right main landing gear above the wheel/axle casting. The airplane sustained buckling of the right wing and buckling at the rear of the cabin.

Bellingham ATC tower controllers noted that they observed the airplane make a very hard landing.

Pilot Information

Certificate:	Private	Age:	73, Male
Airplane Rating(s):	Single-engine land; Multi-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 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	September 2, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	5400 hours (Total, all aircraft), 5241 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	CGHFD
Model/Series:	PA-34-200 PA-34-200	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	32-7350210
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 14, 1998 Annual	Certified Max Gross Wt.:	4200 lbs
Time Since Last Inspection:	76 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	4359 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-360-C1E6
Registered Owner:	PETER GARRISON	Rated Power:	200 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:	KBL	Distance from Accident Site:	
Observation Time:	16:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	10 miles
Lowest Ceiling:	Broken / 8000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	30 knots / 41 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-7°C / -17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CHILLIWAK (CYEW)	Type of Flight Plan Filed:	VFR
Destination:	(KBLI)	Type of Clearance:	None
Departure Time:	16:25 Local	Type of Airspace:	

Airport Information

Airport:	BELLINGHAM KBLI	Runway Surface Type:	Asphalt
Airport Elevation:	166 ft msl	Runway Surface Condition:	Dry
Runway Used:	34	IFR Approach:	None
Runway Length/Width:	6751 ft	VFR Approach/Landing:	Full stop

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:	

Administrative Information

Investigator In Charge (IIC):	Stockhill, Michael
Additional Participating Persons:	CHUCK SICOTTE; RENTON , WA
Original Publish Date:	January 11, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=45498

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