Aviation Investigation Final Report

Location:	MOUNTAIN HOME, Idaho	**Accident Number:**	SEA00LA111
Date & Time:	June 20, 2000, 18:35 Local	**Registration:**	N8865K
Aircraft:	Stinson 108-1	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot took off without first performing the calculations that would determine if the aircraft could out-climb the surrounding terrain under the ambient conditions. Because of the gusty winds, turbulence, downdrafts, and high density altitude, it became evident soon after takeoff that the aircraft might sink into the unfavorable terrain along the departure route. The pilot therefore elected to make a precautionary landing in an open field. During the landing roll on the rough/uneven terrain, one main gear collapsed and the aircraft sustained substantial damage.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's decision to takeoff in unfavorable weather conditions without first calculating takeoff performance data. Factors include gusty winds, downdrafts, terrain-induced turbulence, and rough/uneven terrain where the pilot elected to make the precautionary landing.

Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings
1. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND

2. (C) PERFORMANCE DATA - NOT CALCULATED - PILOT IN COMMAND
3. (F) WEATHER CONDITION - GUSTS
4. (F) WEATHER CONDITION - DOWNDRAFT
5. (F) WEATHER CONDITION - TURBULENCE,TERRAIN INDUCED
6. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
7. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On June 20, 2000, approximately 1835 mountain daylight time, a Stinson 108-1, N8865K, experienced a gear collapse during a precautionary landing just after takeoff from Mountain Home Municipal Airport, Mountain Home, Idaho. The private pilot received minor injuries, but his passenger was not injured. The aircraft, which was owned and operated by the pilot, sustained substantial damage. The flight, which was in the process of departing for Evergreen field, Vancouver, Washington, was being operated in visual meteorological conditions. No flight plan had been filed. The ELT, which was activated during the accident sequence, was turned off at the scene.

The pilot, who had not calculated takeoff performance data prior to the attempted departure, was departing in strong, gusty winds, with a temperature of 78 degrees Fahrenheit. When the aircraft reached about 75 feet above the ground, it encountered moderate turbulence and sinking air. Because it appeared that the aircraft might not out-climb the unfavorable terrain along the planned departure route, the pilot elected to make a precautionary landing in an open field. He reported that the touchdown was successful, but during the landing roll, one of the main gear encountered rough/uneven terrain and folded over.

Based on a field elevation of 3,164 feet, a temperature of 78 degrees Fahrenheit, and a barometric pressure of 30.05 inches of Mercury, the density altitude at the time of departure was approximately 5,100 feet.

Pilot Information

Certificate:	Private	**Age:**	66,Male
Airplane Rating(s):	Single-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 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	October 8, 1999
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	265 hours (Total, all aircraft), 105 hours (Total, this make and model), 214 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	**Registration:**	N8865K
Model/Series:	108-1 108-1	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	108-1865
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	April 16, 2000 Annual	**Certified Max Gross Wt.:**	2230 lbs
Time Since Last Inspection:	38 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1581 Hrs	**Engine Manufacturer:**	Franklin
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	6A4-165-B3
Registered Owner:	HENRY D. WILMES	**Rated Power:**	165 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**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	20 knots / 30 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	26°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MOUNTAIN HOME , MT (U76)	**Type of Flight Plan Filed:**	None
Destination:	VANCOUVER , WA (59S)	**Type of Clearance:**	None
Departure Time:	18:33 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor, 1 None	**Latitude, Longitude:**	43.360351,-115.519737(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	PAT DARLING;
Original Publish Date:	May 18, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49482