



National Transportation Safety Board Aviation Accident Final Report

Location:	Mazama, Washington	Accident Number:	SEA04LA134
Date & Time:	August 1, 2004, 14:30 Local	Registration:	N7815Z
Aircraft:	Cessna 150C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that he noted no problems with the airplane during the preflight inspection and the engine runup. After liftoff on runway 29, the airplane climbed to treetop level, at which point a gust of wind pushed the airplane left toward trees bordering the runway. The pilot had to bank the airplane to avoid the trees, and the airplane stopped climbing. After "barely clearing" the trees at the end of the runway, the pilot elected to put the airplane back on the ground as he was concerned the airplane might not clear trees located further ahead. He selected a streambed as an emergency landing site. During the emergency landing, the airplane contacted trees along the edge of the streambed. The pilot reported that the temperature was 88 degrees F and the winds were from 300 degrees at 3 knots. The airport elevation was 2,415 feet, and the density altitude was calculated to be approximately 5,000 feet.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate compensation for the weather conditions and his failure to maintain the initial takeoff climb, which resulted in a collision with trees during an emergency landing. Contributing factors were the unfavorable wind and high density altitude weather conditions.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
2. (F) WEATHER CONDITION - UNFAVORABLE WIND
3. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
4. (C) CLIMB - NOT MAINTAINED - PILOT IN COMMAND
5. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings

6. OBJECT - TREE(S)

Factual Information

On August 1, 2004, approximately 1430 Pacific daylight time, a Cessna 150C, N7815Z, lost altitude and struck trees during the initial takeoff climb from the Lost River Resort Airport, Mazama, Washington. The airplane sustained substantial damage, the private pilot received serious injuries, and the passenger received minor injuries. The airplane was being operated by the pilot under the provisions of Title 14, CFR Part 91 when the accident occurred. Visual meteorological conditions prevailed, and no flight plan was filed. The flight was originating at the time of the accident with an intended destination of Arlington Municipal Airport, Arlington, Washington.

According to a report prepared by a deputy with the Okanogan County Sheriff's Office, who responded to the accident site, the pilot told the deputy that he was taking off in the airplane on runway 29 and "could not get lift and clear the trees at the end of the runway." The deputy reported that he did not see any indication the airplane hit the trees located at the end of the runway, but actually cleared those trees, then descended, contacted the ground and slid about 40 feet into another group of trees. The airplane came to rest about 150 yards from the departure end of the runway. The deputy reported that the temperature was 92 degrees Fahrenheit (F), the humidity was 23%, and the wind was from the north at about 6 mph.

In a telephone interview conducted by the NTSB investigator-in-charge on August 3, 2004, the pilot stated that he noted no problems with the airplane during the preflight inspection and the engine runup. After liftoff, the airplane climbed to treetop level, at which point a gust of wind pushed the airplane left towards the trees bordering the runway. The pilot had to bank the airplane to avoid the trees, and the airplane stopped climbing. After "barely clearing" the trees at the end of the runway, the pilot elected to put the airplane back on the ground as he was concerned the airplane might not clear trees located further ahead. He selected a streambed as an emergency landing site. During the emergency landing, the airplane contacted trees along the edge of the streambed.

The pilot reported that the temperature was 88 degrees F and the winds were from 300 degrees at 3 knots. The pilot did not recall the current altimeter setting. At 1453, the nearest weather reporting station, located at Omak, Washington approximately 41 nautical miles east of the accident site, reported an altimeter setting of 29.74 inches. Using the airport elevation of 2,415 feet, a temperature of 88 degrees F, and an altimeter setting of 29.74 inches, the density altitude was calculated as 5,048 feet.

Pilot Information

Certificate:	Private	Age:	38, 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--no waivers/lim.	Last FAA Medical Exam:	February 5, 2004
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	August 11, 2003
Flight Time:	174 hours (Total, all aircraft), 122 hours (Total, this make and model), 114 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N7815Z
Model/Series:	150C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	15059915
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	100 hour	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:	50 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6293 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed	Engine Model/Series:	O-200A
Registered Owner:		Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

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:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	31 °C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mazama, WA (W12)	Type of Flight Plan Filed:	None
Destination:	Arlington, WA (AWO)	Type of Clearance:	None
Departure Time:	14:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	Lost River Resort W12	Runway Surface Type:	Grass/turf;Gravel
Airport Elevation:	2415 ft msl	Runway Surface Condition:	Dry
Runway Used:	29	IFR Approach:	None
Runway Length/Width:	3150 ft / 85 ft	VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	48.649444, -120.501945

Administrative Information

Investigator In Charge (IIC):	Struhsaker, Georgia
Additional Participating Persons:	Grant R Webb; FAA, Spokane FSDO; Spokane, WA
Original Publish Date:	October 28, 2004
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=59801

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).