



Aviation Investigation Final Report

Location:	Sisters, Oregon	Accident Number:	GAA18CA254
Date & Time:	May 4, 2018, 17:45 Local	Registration:	N222BD
Aircraft:	Beech 58	Aircraft Damage:	Substantial
Defining Event:	Landing area undershoot	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

The pilot performed a steep approach over tree-covered descending terrain to the tree-lined runway. He reported that, on the approach, the airplane "encountered significant low-level wind shear and sink" about 800 ft before the runway. He aborted the landing, but the airplane impacted the ground 150 ft short of the runway.

The airplane sustained substantial damage to both engine mounts and the right-wing spar.

The AWOS located on the airport reported that, about the time of the accident, the wind was from 250° at 13 knots, gusting to 22 knots. The density altitude was reported as 4,000 ft, and the pilot landed on runway 20, which was 3,560 ft long.

The airport facility directory stated that runway 20 has a nonstandard entry due to rising terrain at the approach end, along with 81-ft-tall trees that were 560 ft from the approach end of the runway.

In the recommendation section of the National Transportation Safety Board Pilot Aircraft Accident Report, the pilot reported that the accident could have been prevented by avoiding nonstandard or steep approaches to runway 20 in gusting wind conditions.

The pilot reported that there were no mechanical malfunctions or failures with the airplane that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain sufficient altitude during approach in gusting crosswind conditions, which resulted in an attempted rejected landing and a runway undershoot.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Altitude - Not attained/maintained
Aircraft	Descent/approach/glide path - Not attained/maintained
Environmental issues	Gusts - Effect on operation
Environmental issues	Crosswind - Effect on operation

Factual Information

History of Flight

Approach	Other weather encounter
Landing	Landing area undershoot (Defining event)

Pilot Information

Certificate:	Private	Age:	53,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	October 26, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 19, 2017
Flight Time:	(Estimated) 2653 hours (Total, all aircraft), 900 hours (Total, this make and model), 241088 hours (Pilot In Command, all aircraft), 58 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N222BD
Model/Series:	58 P	Aircraft Category:	Airplane
Year of Manufacture:	1982	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	TJ-409
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	July 5, 2017 Annual	Certified Max Gross Wt.:	6240 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	4296 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	C126 installed, not activated	Engine Model/Series:	TSIO-520-WB
Registered Owner:		Rated Power:	325 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KRDM,3084 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	00:56 Local	Direction from Accident Site:	99°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	15 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	23°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Napa, CA (APC)	Type of Flight Plan Filed:	None
Destination:	Sisters, OR (6K5)	Type of Clearance:	None
Departure Time:	16:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	SISTERS EAGLE AIR 6K5	Runway Surface Type:	Asphalt
Airport Elevation:	3168 ft msl	Runway Surface Condition:	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	3560 ft / 60 ft	VFR Approach/Landing:	Forced landing;Go around;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	44.304443,-121.539169(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Ken Bradshaw; FAA; Hillsboro, OR
Original Publish Date:	October 24, 2018
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97182

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](#).