



Aviation Investigation Final Report

Location:	MULINO, Oregon	Accident Number:	SEA96LA194
Date & Time:	August 18, 1996, 10:30 Local	Registration:	N150KS
Aircraft:	Piper PA-20	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot was performing a series of touch-and-go landings. While climbing after his 5th touch-and-go, the engine lost power at about 150-200 feet above ground level. The pilot attempted an emergency landing on the remaining available runway, but there was insufficient runway remaining to stop. The pilot performed an intentional nose-over near the end of the runway in order to avoid rolling off a steep drop-off to a river about 100 feet below. Inspection and running of the engine did not reveal the reason for the loss of engine power. Sufficient fuel for the flight was available in the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: loss of engine power for undetermined reason(s).

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: NOSE OVER
Phase of Operation: EMERGENCY LANDING

Findings
2. REMEDIAL ACTION - INTENTIONAL - PILOT IN COMMAND

Factual Information

On August 18, 1996, approximately 1030 Pacific daylight time, a Piper PA-20, N150KS, sustained substantial damage during a forced landing after a loss of engine power while climbing out at Mulino, Oregon, during a series of touch-and-go landings. The student pilot, the sole occupant, was uninjured. Visual meteorological conditions prevailed at the time of the accident. No flight plan was filed for the flight.

The pilot stated that while practicing touch-and-go landings, he was climbing out on his fifth touch-and-go, when the engine quit at about 150-200 feet above ground level. He said that up until the time the engine failed all instrument indications were normal, and the loss of power was sudden.

The pilot stated that he pushed the nose down to prevent a stall and set the airplane down approximated 60-70 feet from the end of the runway. At that point, his groundspeed was too great to prevent the aircraft from going off the end of the runway. Less than 100 feet from the end of the runway is a sheer drop into the Mulino river. He said that full left braking failed to turn the aircraft because of excessive speed. He stated that he was forced to push the yoke forward while applying both brakes full to flip the aircraft on its back, in order to prevent going over the cliff. The airplane came to a rest approximate 30 feet from the edge.

After recovery, the engine was test run in the aircraft and operated normally. The fuel tanks had been filled within the previous hour or so of flight time. No anomalies were found to explain the loss of engine power.

Pilot Information

Certificate:	Student	Age:	18, Male
Airplane Rating(s):	None	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:	January 31, 1996
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	102 hours (Total, all aircraft), 41 hours (Total, this make and model), 56 hours (Pilot In Command, all aircraft), 73 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N150KS
Model/Series:	PA-20 PA-20	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	20-678
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	May 12, 1996 Annual	Certified Max Gross Wt.:	1850 lbs
Time Since Last Inspection:	85 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4848 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-A2B
Registered Owner:	JAMES E. WARNOCK	Rated Power:	150 Horsepower
Operator:	JAMES K. WARNOCK	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:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(4S9)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	10:30 Local	Type of Airspace:	

Airport Information

Airport:	MULINO 4S9	Runway Surface Type:	Asphalt
Airport Elevation:	257 ft msl	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	3600 ft / 100 ft	VFR Approach/Landing:	Forced landing

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:	45.199699,-122.540969(est)

Administrative Information

Investigator In Charge (IIC):	Stockhill, Michael
Additional Participating Persons:	BOB BRASE; HILLSBORO , OR
Original Publish Date:	February 28, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=42447

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