Aviation Investigation Final Report

Location:	Sandpoint, Idaho	**Accident Number:**	WPR13LA419
Date & Time:	September 23, 2013, 08:15 Local	**Registration:**	N35FD
Aircraft:	Piper PA60 602P	**Aircraft Damage:**	Substantial
Defining Event:	Landing area overshoot	**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Executive/Corporate		

Analysis

The pilot reported that, while on a right base leg visual approach, he received the current automated weather report and that he did not think that the 4-knot tailwind was an issue because the runway was 5,500 feet long. The pilot reported that, although the airplane landed long, he thought that he had sufficient runway to stop the airplane with heavy braking. However, as he applied the brakes, he felt the sensation of "no brakes" as the end of the runway quickly approached. The airplane's owner, who occupied a seat in the rear cabin, reported that the pilot seemed to be having a problem aligning the airplane with the runway during the approach, that the airplane was high and fast and the flaps were full down, and that the pilot was trying to force the airplane down onto the runway. The passenger reported that he observed that the approach speed was 132 knots; per the airplane's flight manual, the calculated approach speed for the landing weight of the airplane was about 90 knots. The airplane subsequently ran off the end of the runway and impacted the localizer structure, which resulted in substantial damage to the airplane. A postaccident examination of the airplane's braking system revealed that the brakes were likely operating properly before the airplane exited the runway.

Probable Cause and Findings

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

The pilot's failure to fly the approach at the appropriate landing speed and attain the correct touchdown point, which resulted in a runway overrun.

Findings

Aircraft	Landing distance - Not attained/maintained
Aircraft	Descent/approach/glide path - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Runway/taxi/approach light - Contributed to outcome
Environmental issues	Tailwind - Not specified

Factual Information

History of Flight

Landing-flare/touchdown	Landing area overshoot (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

On September 23, 2013, about 0815 Pacific daylight time, a Piper PA60 602P, N35FD, sustained substantial damage as a result of a runway overrun and subsequent impact with the airport's localizer equipment at the Sandpoint Airport, Sandpoint, Idaho. The airplane was registered to Young Living Essential Oils LC, of Lehi, Utah. The commercial pilot and one passenger were not injured, while the remaining passenger sustained minor injuries. Visual meteorological conditions prevailed for the corporate cross-country flight, which was being operated in accordance with 14 Code of Federal Regulations Part 91, and an instrument flight rules flight plan was filed. The flight departed the Provo Municipal Airport, Provo, Utah, about 0600 mountain daylight time, with SZT as its destination.

In a statement submitted to the National Transportation Safety Board investigator-in-charge (IIC), the pilot reported while approaching SZT, he requested and was approved for the GPS approach [for Runway 01]. After descending out of the clouds at about 2,500 feet above ground level (agl), the pilot received the local automated weather; the wind was reported to be from 190 degrees at 4 knots. The pilot stated that as he was set up on a right base leg for runway 01, he considered the 4 knot tailwind minimal for the 5,500-foot runway. The pilot further stated that he landed quite a bit long, but thought he had sufficient room to stop with heavy braking, and [during the landing roll] had the sensation of "…no brakes at all." The airplane subsequently ran off the end of the runway, and impacted the localizer before coming to rest upright. The pilot concluded in his report that this accident could have been prevented by landing into the wind and on the numbers. The pilot reported no mechanical malfunctions or failures with the airplane that would have precluded normal operation.

In a telephone interview with the IIC, the owner of the airplane reported that he was seated in the rear cabin at the time of the accident. The owner stated that during the approach he detected that the pilot was having an alignment problem with the approach. He further reported that the pilot was high, the flaps were full down, the airspeed over the threshold was 132 knots, and that there was a tailwind of about 10 knots; the airplane flight manual states that the approach speed for the reported landing weight of 5,156 pounds and full flaps (45 degrees) would have been about 90 knots. The owner stated that over the runway threshold, the airplane dropped down then went back up, and that the pilot tried to force the airplane down. The owner added that after the airplane went off the end of the runway and came to a stop, he exited the aircraft and noticed that while the brakes were not smoking, they were hot.

A postaccident examination of the airplane's braking system was performed by a Federal Aviation Administration airworthiness inspector, on September 25, 2013. The inspector reported that an inspection of the brake reservoir revealed that all of the brake fluid was gone, however, the inside area of the reservoir was observed to be wet and shiny, indicative that there had been brake fluid present

recently. Further, inspection of the brake actuators on the pilot's rudder pedals revealed that all components appeared to be working correctly. The inspector concluded that all evidence observed supports the contention that the brakes were most likely operating properly prior to the airplane leaving the runway.

Pilot Information

Certificate:	Commercial	**Age:**	55
Airplane Rating(s):	Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Powered-lift	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	June 18, 2013
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	June 13, 2012
Flight Time:	3368 hours (Total, all aircraft), 1137 hours (Total, this make and model), 3368 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N35FD
Model/Series:	PA60 602P	**Aircraft Category:**	Airplane
Year of Manufacture:	1981	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	62P08828165017
Landing Gear Type:	Retractable - Tricycle	**Seats:**	5
Date/Type of Last Inspection:	August 7, 2013 Annual	**Certified Max Gross Wt.:**	6400 lbs
Time Since Last Inspection:	50 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	2117 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	TIO-540
Registered Owner:	Young Living Essential Oils LC	**Rated Power:**	350 Horsepower
Operator:	Donald M Muirhead	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	SZT,2121 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	07:43 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 2200 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	190°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	10°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Provo, UT (PVU)	**Type of Flight Plan Filed:**	IFR
Destination:	Sandpoint, ID (SZT)	**Type of Clearance:**	IFR
Departure Time:	06:15 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	Sandpoint Airport SZT	**Runway Surface Type:**	Asphalt
Airport Elevation:	2131 ft msl	**Runway Surface Condition:**	Wet
Runway Used:	01	**IFR Approach:**	Global positioning system
Runway Length/Width:	5501 ft / 75 ft	**VFR Approach/Landing:**	Traffic pattern

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:**	48.340099,-116.450561(est)

Administrative Information

Investigator In Charge (IIC):	Little, Thomas
Additional Participating Persons:	Bob Rasmussen; Federal Aviation Administration; Spokane, WA
Original Publish Date:	October 27, 2014
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=88109