



Aviation Investigation Final Report

Location:	Salt Lake City, Utah	Accident Number:	WPR14LA133
Date & Time:	March 8, 2014, 13:30 Local	Registration:	N123WW
Aircraft:	PETER W STEVENS BEARHAWK PATROL	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during the landing roll, the airplane slowed to about 10 to 15 mph as it came abeam four helicopters on a taxiway. The pilot further reported that the airplane's left side encountered a sudden blast of air and that the left wing lifted; he attributed the blast of air to rotor wash from the helicopters. The airplane spun hard to the right, exited the runway into a dirt area, and then stopped facing 180 degrees in the opposite direction. The left wing tip struck the ground during the excursion and sustained substantial damage. The pilot reported no mechanical malfunctions or failures with the airplane that would have precluded normal operation.

The four pilots in the helicopters on the taxiway were conducting engine health indicator test checks using 30 percent power with two engines operating and 60 percent power with one engine operating, which was about half the power needed to hover. Federal Aviation Administration guidance advised pilots of small aircraft operating around helicopters to avoid operating within about three times the diameter of the helicopters' main rotor blades. The distance between the airplane and the helicopters when the airplane passed them abeam was calculated to be about 400 ft, which was over six diameters away; therefore, helicopter rotor wash likely did not contribute to the pilot's loss of directional control.

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 directional control during the landing roll.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion

On March 8, 2014, about 1330 mountain daylight time, a Peter W Stevens Bearhawk Patrol, N123WW, had a runway excursion during the landing roll at South Valley Regional Airport, Salt Lake City, Utah. The owner/pilot was operating the airplane under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The commercial pilot was not injured; the airplane sustained substantial damage to the left wing. The cross-country personal flight departed Bountiful, Utah, at 1315. Visual meteorological conditions (VMC) prevailed, and no flight plan had been filed.

The pilot reported that he landed on runway 34. He observed five Blackhawk helicopters hovering in formation on taxiway Bravo. The airplane had slowed to 10-15 miles per hour as it came abeam the helicopters. The pilot said that the left side of the airplane encountered a sudden blast of air, and the left wing lifted. The airplane spun hard to the right, exited the runway into a dirt area, and stopped facing 180 degrees in the opposite direction. The left wing tip struck the ground during the excursion, and sustained substantial damage. The pilot attributed the wind gust to the rotorwash from the helicopters.

A Federal Aviation Administration (FAA) inspector determined that there were four helicopters on taxiway Bravo that were doing engine Health Indicator Test (HIT) checks. They were using 30 percent power with two engines operating, and 60 percent with one engine operating, which was about 1/2 the power needed to hover. The inspector used scaled airport construction diagrams to calculate that the distance from the helicopters to the airplane's location when it passed abeam was about 400 feet.

The FAA Aeronautical Information Manual Section 7-3-7 and Advisory Circular AC 90-23G paragraph 10 stated that if a helicopter was in a stationary hover near the surface, the main rotors generated downwash producing high velocity outwash vortices to a distance of approximately three times the diameter of the rotor. They advised pilots of small aircraft to avoid operating within that distance.

The diameter of the Blackhawk's main rotor blades was 53 feet 8 inches; three diameters computed to 176 feet.

Wind reported at the nearest recording station was 360 degrees at 5 knots.

Pilot Information

Certificate:	Commercial; Flight instructor; Private	Age:	78
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	November 12, 2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 25, 2013
Flight Time:	1812 hours (Total, all aircraft), 46 hours (Total, this make and model), 1812 hours (Pilot In Command, all aircraft), 29 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PETER W STEVENS	Registration:	N123WW
Model/Series:	BEARHAWK PATROL	Aircraft Category:	Airplane
Year of Manufacture:	2013	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	P002-P05/P06-12
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	April 15, 2013 Annual	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	46 Hrs at time of accident	Engine Manufacturer:	ECl
ELT:	Installed, not activated	Engine Model/Series:	OX-360-H4A1N
Registered Owner:	STEVENS PETER W	Rated Power:	180 Horsepower
Operator:	STEVENS PETER W	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KSLC, 4227 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	350°
Lowest Cloud Condition:	Few / 15000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.37 inches Hg	Temperature/Dew Point:	13°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bountiful, UT (KBTF)	Type of Flight Plan Filed:	None
Destination:	Salt Lake City, UT (U42)	Type of Clearance:	None
Departure Time:	13:15 Local	Type of Airspace:	

Airport Information

Airport:	South Valley Regional U42	Runway Surface Type:	Asphalt
Airport Elevation:	4606 ft msl	Runway Surface Condition:	Dry
Runway Used:	34	IFR Approach:	None
Runway Length/Width:	5862 ft / 100 ft	VFR Approach/Landing:	Full stop

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:	40.619445,-111.992774(est)

Administrative Information

Investigator In Charge (IIC):	Plagens, Howard
Additional Participating Persons:	Kent Gibbons; Federal Aviation Administration; Salt Lake City, UT
Original Publish Date:	January 21, 2016
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=88901

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).