Aviation Investigation Final Report

Location:	Camas, Washington	**Accident Number:**	WPR10LA091
Date & Time:	December 22, 2009, 12:15 Local	**Registration:**	N973WP
Aircraft:	Beech A23-24	**Aircraft Damage:**	Substantial
Defining Event:	Electrical system malf/failure	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that due to low overnight temperatures the engine would not start. As a part of his normal procedure for cold weather operations, he turned off the master and ignition switches, removed the key, and exited the airplane. The pilot was rotating the propeller counterclockwise by hand when the engine suddenly started. The airplane began moving down the taxiway and struck an unoccupied, parked airplane. The engine immediately stopped and the airplane turned approximately 90 degrees to the left, substantially damaging the airplane's left wing. Postaccident examination of the engine revealed a broken p-lead on the left magneto of the airplane. The pilot stated that he could have prevented this accident from occurring by placing the mixture at idle cutoff, placing the throttle at idle, chocking the wheels, and turning the propeller in a clockwise direction.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The left magneto's broken p-lead, which led to the engine inadvertently starting while the pilot was turning the propeller by hand.

Findings

Aircraft	Magneto/distributor - Damaged/degraded

Factual Information

History of Flight

Prior to flight	Electrical system malf/failure (Defining event)
Prior to flight	Ground handling event

On December 22, 2009, about 1215 Pacific standard time, a Beech A23-24, N973WP, collided with parked airplanes after inadvertently starting at the Grove Field Airport, Camas, Washington. The pilot, who was the owner, was operating the airplane under the provisions of 14 Code of Federal Regulations Part 91. The private pilot and passenger were not injured; the airplane sustained substantial damage. The pilot had planned to conduct a personal local area flight. Visual meteorological conditions prevailed, and a flight plan was not filed.

During a telephone conversation with a Safety Board investigator, the pilot reported that he and the passenger boarded the airplane for a local flight. Due to low overnight temperatures, when he attempted to start the engine, the starter could not turn the propeller through the entire compression cycle. As part of his normal procedure for cold weather operations, the pilot exited the airplane and rotated the propeller counterclockwise in an attempt to circulate the oil through the engine. While beginning to rotate the propeller, the engine inadvertently started. The airplane, with the passenger still on board, lurched forward and traversed across the ramp. The airplane collided with a parked airplane; the accident airplane's left wing was damaged. He noted that the master switch was off and that he had not engaged the ignition switch.

A post-accident examination of the airframe and engine by a Federal Aviation Administration (FAA) inspector and certificated airframe and powerplant mechanic revealed that there was a broken p-lead on the left magneto of the airplane. According to the pilot, the airplane last underwent an annual inspection on April 22, 2009, 41 flight hours prior to the accident. The S4LN-1227 magneto (p/n BL349365-03, s/n H139905 FR), was originally installed on the engine at time of manufacture and had amassed about 3,300 hours of time in service. The airplane was equipped with a Textron Lycoming IO-360-A2B, which rotates the propeller counterclockwise during operation (as viewed from the front).

In the section titled "RECOMMENDATION" in the NTSB Pilot/Operator Report, Form 6120.1, the pilot stated if he conducts this procedure again he will place the mixture and throttle in the idle position, chock the wheels, and turn propeller in a clockwise direction.

Pilot Information

Certificate:	Private	**Age:**	60,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	April 2, 2008
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	May 6, 2008
Flight Time:	1602 hours (Total, all aircraft), 1104 hours (Total, this make and model), 1571 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N973WP
Model/Series:	A23-24	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	MA-274
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	April 22, 2009 Annual	**Certified Max Gross Wt.:**	2550 lbs
Time Since Last Inspection:	41 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3303 Hrs at time of accident	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360 SER
Registered Owner:	WOODRUFF BARRY W	**Rated Power:**	180 Horsepower
Operator:	WOODRUFF BARRY W	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	TTD,39 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	19:53 Local	**Direction from Accident Site:**	178°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 3400 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.17 inches Hg	**Temperature/Dew Point:**	5°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Camas, WA (1W1)	**Type of Flight Plan Filed:**	None
Destination:	Camas, WA (1W1)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	Grove Field Airport 1W1	**Runway Surface Type:**	
Airport Elevation:	429 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	45.627777,-122.404167(est)

Administrative Information

Investigator In Charge (IIC):	Keliher, Zoe
Additional Participating Persons:	Tim Moon; Federal Aviation Administration; Hillsboro, OR
Original Publish Date:	October 21, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=75195