



National Transportation Safety Board

Aviation Accident Data Summary

Location:	Ocean Shores, WA	Accident Number:	WPR16LA164
Date & Time:	08/12/2016, 1000 PDT	Registration:	N619LD
Aircraft:	ZENITH CH601	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot was conducting a local personal flight in an experimental, amateur-built airplane. The pilot reported that, during cruise flight, the voltmeter's indications became erratic and that, shortly after, the airplane experienced a total loss of electrical power. The engine subsequently lost power, and the pilot conducted an emergency landing, during which the bottom of the fuselage contacted surrounding vegetation. The right wing then dipped, and the airplane impacted terrain. The pilot reported that, following the accident, he checked the battery's charge, and it was 11 volts; however, the electrical system on the airplane required 12 to 13 volts for operation.

The pilot partially disassembled the airplane following the accident, and the engine, most of the flight instruments, the tachometer, and the interior components were not available for examination. Therefore, a thorough evaluation of the airplane's electrical system was not possible. However, the battery examination revealed that it had a 10-volt charge, indicating that either a battery or charging system failure occurred. The fuel delivery system included two electronic fuel pumps connected in series with no mechanical or auxiliary pumps installed. Therefore, the loss of electrical power would have disabled both fuel pumps and resulted in fuel starvation and a loss of engine power. There was no other method to deliver fuel to the engine if the battery power was insufficient to power the fuel pumps.

Flight Events

Enroute-cruise - Electrical system malf/failure
Enroute-cruise - Loss of engine power (total)
Landing - Collision with terr/obj (non-CFIT)

Probable Cause

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

A reduction in electrical power, which disabled both fuel pumps and resulted in fuel starvation and a loss of engine power.

Findings

Aircraft-Aircraft systems-Electrical power system-(general)-Failure - C

Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid level - C

Environmental issues-Physical environment-Object/animal/substance-(general)-Contributed to outcome

Pilot Information

Certificate:	Private	Age:	73
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	(Estimated) 720 hours (Total, all aircraft), 720 hours (Pilot In Command, all aircraft), 11 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ZENITH	Registration:	N619LD
Model/Series:	CH601	Engines:	1 Reciprocating
Operator:	On file	Engine Manufacturer:	Continental
Operating Certificate(s) Held:	None	Engine Model/Series:	O-200
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KHQM, 15 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	7 knots / , 90°
Temperature:	18° C	Visibility	6 Miles
Precipitation and Obscuration:	Moderate - Mist; No Obscuration; No Precipitation		
Departure Point:	HOQUIAM, WA (HQM)	Destination:	HOQUIAM, WA (HQM)

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	46.992222, -124.140278 (est)		

