Aviation Investigation Final Report

Location:	Bigfork, Montana	**Accident Number:**	SEA08CA010
Date & Time:	October 14, 2007, 14:30 Local	**Registration:**	N475TW
Aircraft:	Welch RV-9	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that at the completion of a third flight for the day, he was returning to the airport for landing. The flight entered downwind when the engine sputtered, ran smoothly, then lost power. The pilot switched the fuel selector from the right tank to the left tank and attempted to restart the engine. The engine would not start and the pilot initially thought that he could make the end of the runway, however the aircraft lost altitude and the landing gear hit the edge of the road short of the runway and the aircraft slid through a barb wire fence and onto the runway. Both wings and the tail section were substantially damaged. After the accident, the pilot stated that he found the right fuel tank "extremely low" and the left fuel tank about a third full. The pilot continued to state that after changing to the left fuel tank, he believed that the fuel pump did not fill the header tank fast enough for an engine restart.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fuel starvation while on downwind for landing. The pilot's inadequate in-flight fuel management planning was a factor.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

Findings

1. (C) FLUID,FUEL - STARVATION
2. (F) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings
3. TERRAIN CONDITION - ROADWAY/HIGHWAY

Factual Information

The pilot reported that at the completion of a third flight for the day, he was returning to the airport for landing. The flight entered downwind when the engine sputtered, ran smoothly, then lost power. The pilot switched the fuel selector from the right tank to the left tank and attempted to restart the engine. The engine would not start and the pilot initially thought that he could make the end of the runway, however the aircraft lost altitude and the landing gear hit the edge of the road short of the runway and the aircraft slid through a barb wire fence and onto the runway. Both wings and the tail section were substantially damaged.

After the accident, the pilot stated that he found the right fuel tank "extremely low" and the left fuel tank about a third full. The pilot continued to state that after changing to the left fuel tank, he believed that the fuel pump did not fill the header tank fast enough for an engine restart.

Pilot Information

Certificate:	Private	**Age:**	56,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):		**Toxicology Performed:**	No
Medical Certification:	Class 3	**Last FAA Medical Exam:**	June 1, 2006
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	354 hours (Total, all aircraft), 72 hours (Total, this make and model), 20 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Welch	**Registration:**	N475TW
Model/Series:	RV-9	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	90475
Landing Gear Type:	Tailwheel	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Subaru
ELT:		**Engine Model/Series:**	Unknown
Registered Owner:	Thomas Welch	**Rated Power:**	
Operator:	Bruce W. Piasecki	**Operating Certificate(s) Held:**	None

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:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bigfork, MT (53U)	**Type of Flight Plan Filed:**	None
Destination:	(53U)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	Ferndale 53U	**Runway Surface Type:**	Asphalt
Airport Elevation:		**Runway Surface Condition:**	Dry
Runway Used:	33	**IFR Approach:**	None
Runway Length/Width:	3500 ft / 95 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	
Total Injuries:	2 None	**Latitude, Longitude:**	48.080554,-114.001663

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	
Original Publish Date:	December 20, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66898