Aviation Investigation Final Report

Location:	Kamaih, Idaho	**Accident Number:**	SEA05CA140
Date & Time:	July 3, 2005, 16:00 Local	**Registration:**	N1735P
Aircraft:	Piper PA-22	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported "the owners manual [aircraft], check list, placard, and my flight instructor had all noted that takeoff on the right fuel tank with less than 1/3 fuel is prohibited." The pilot further stated that during the preflight run-up he was distracted and inadvertently "missed the switch to left tank." Shortly after takeoff, about 100 feet above ground level (agl), the engine quit. The pilot reported that he switched tanks, but was unable to restart the engine before the airplane impacted the runway in a nose-low attitude resulting in substantial damage. The airplane is equipped with two 18-gallon wing tanks. The pilot reported the airplane contained approximately 10 gallons of fuel at the time of the takeoff.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fuel starvation due to the pilot's improper placement of the fuel selector, resulting in a loss of engine power, and collision with terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) FLUID,FUEL - STARVATION
2. (C) FUEL TANK SELECTOR POSITION - IMPROPER - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings
3. TERRAIN CONDITION - RUNWAY

Factual Information

On July 3, 2005, about 1600 mountain daylight time, a Piper PA-22, N1735P, sustained substantial damage after impacting terrain shortly after takeoff from Kamiah Municipal Airport, Kamiah, Idaho. The airplane was owned by the pilot, and was being operated as a visual flight rules (VFR) instructional flight under the provisions of Title 14, CFR Part 91, when the accident occurred. The student pilot, the sole occupant of the airplane, was not injured. Visual meteorological conditions prevailed for the local flight. No flight plan was filed.

In a written statement dated July 14, the pilot reported "the owners manual [aircraft], check list, placard, and my flight instructor had all noted that takeoff on the right fuel tank with less than 1/3 fuel is prohibited." The pilot further stated that during the preflight run-up he was distracted and inadvertently "missed the switch to left tank." Shortly after takeoff, about 100 feet above ground level (agl), the engine quit. The pilot reported that he switched tanks, but was unable to restart the engine before the airplane impacted the runway in a nose-low attitude resulting in substantial damage.

The airplane is equipped with two 18-gallon wing tanks.

The pilot reported the airplane contained approximately 10 gallons of fuel at the time of the takeoff.

Student pilot Information

Certificate:	Student	**Age:**	53,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:**	September 1, 2003
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	113 hours (Total, all aircraft), 8 hours (Total, this make and model), 50 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N1735P
Model/Series:	PA-22	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	22-2525
Landing Gear Type:	Tricycle	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:		**Engine Model/Series:**	O-320
Registered Owner:	Keith A. Borgelt	**Rated Power:**	
Operator:	Keith A. Borgelt	**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:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	Kamaih, ID (S73)	**Type of Flight Plan Filed:**	None
Destination:	Kamaih, ID	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	KAMIAH MUNI S73	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	32	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

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:**	46.221111,-116.01361

Administrative Information

Investigator In Charge (IIC):	Hogenson, Dennis
Additional Participating Persons:	
Original Publish Date:	October 27, 2005
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=61925