Aviation Investigation Final Report

Location:	Ogden, Utah	**Accident Number:**	DEN05LA019
Date & Time:	November 2, 2004, 16:55 Local	**Registration:**	N7852P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Serious
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot reported engine problems while on approach to the airport. During the forced landing, the airplane impacted a berm, and tall brush, causing substantial damage. A postaccident examination of the engine on the day of the accident revealed that the air box around the carburetor contained a small amount of water. The routine weather report taken at 1653 reported the temperature as 42 degrees Fahrenheit (F) and the dewpoint as 25 degrees F. According to the carburetor icing chart, conditions were conducive for icing at glide and cruise power. In addition, several other pilots flying in the area at the time of the accident reported experiencing carburetor icing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the loss of engine power due to carburetor icing. Contributing factors include the weather conditions conducive for carburetor icing, and a lack of suitable terrain for a forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: APPROACH

Findings
1. (C) FUEL SYSTEM,CARBURETOR - ICE
2. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

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

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings
3. (F) TERRAIN CONDITION - NONE SUITABLE
4. TERRAIN CONDITION - HIGH VEGETATION
5. TERRAIN CONDITION - BERM

Factual Information

On November 2, 2004, at approximately 1655 mountain standard time, a Piper PA-24-250, N7852P, operated by KW Aviation, was substantially damaged when it impacted terrain during a forced landing 3 miles north of Ogden-Hinckley Airport, Ogden, Utah. Visual meteorological conditions prevailed at the time of the accident. The training flight was being conducted under the provisions of Title 14 CFR Part 91 without a flight plan. The commercial certificated pilot and flight instructor sustained serious injuries. The local flight originated at approximately 1530.

According to the FAA inspector who traveled to the scene, the pilot reported engine problems while on approach for landing to the Ogden airport. During the forced landing, the airplane impacted a berm, and tall brush, separating the empennage. The right main landing gear penetrated the right wing and the outboard 2 feet of the left wing was crushed and bent up. Both pilots sustained head injuries and neither are able to remember the events leading up to the accident.

A postaccident examination of the engine on the day of the accident, conducted by the FAA, revealed that the air box around the carburetor contained a small amount of water. Further inspection of the engine and remaining airplane systems revealed no anomalies.

The Ogden routine weather report taken at 1653 reported the temperature as 42 degrees Fahrenheit (F) and the dewpoint as 25 degrees F. According to the carburetor icing chart, conditions were conducive for icing at glide and cruise power. The FAA inspector stated that several other pilots flying in the area at the time of the accident reported experiencing carburetor icing as well.

Flight instructor Information

Certificate:	Commercial; Flight instructor	**Age:**	25,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	March 15, 2004
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	September 16, 2003
Flight Time:	1722 hours (Total, all aircraft), 59 hours (Total, this make and model), 1647 hours (Pilot In Command, all aircraft), 201 hours (Last 90 days, all aircraft), 69 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Commercial	**Age:**	33,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	October 6, 2004
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	October 7, 2004
Flight Time:	800 hours (Total, all aircraft), 100 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N7852P
Model/Series:	PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-3075
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	November 25, 2003 Annual	**Certified Max Gross Wt.:**	2900 lbs
Time Since Last Inspection:	82 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3825 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-540-A1D5
Registered Owner:	On File	**Rated Power:**	250 Horsepower
Operator:	KW Avation	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	OGD,4473 ft msl	**Distance from Accident Site:**	3 Nautical Miles
Observation Time:	16:53 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	290°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.36 inches Hg	**Temperature/Dew Point:**	6°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ogden, UT (OGD)	**Type of Flight Plan Filed:**	Unknown
Destination:	Ogden, UT (OGD)	**Type of Clearance:**	None
Departure Time:	15:30 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	OGDEN-HINCKLEY OGD	**Runway Surface Type:**	
Airport Elevation:	4473 ft msl	**Runway Surface Condition:**	Dry;Rough;Vegetation
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	2 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Serious	**Latitude, Longitude:**	41.184444,-112.001113

Administrative Information

Investigator In Charge (IIC):	Bowling, David
Additional Participating Persons:	Dennis A Seals; FAA Flight Standards District Office; Salt Lake City, UT
Original Publish Date:	March 30, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=60498