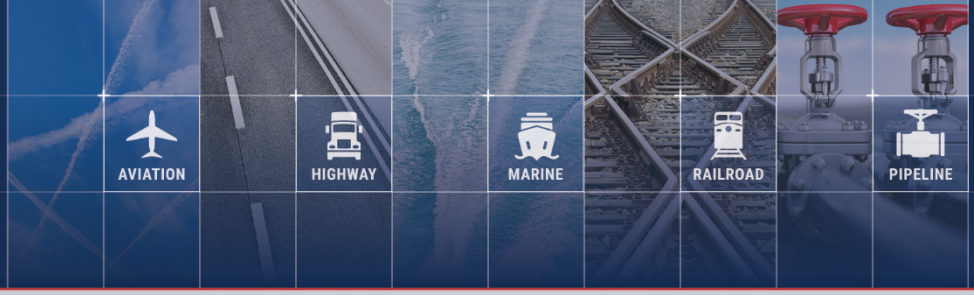

Aviation Investigation Final Report

Location:	Kelso, Washington	**Accident Number:**	SEA06LA037
Date & Time:	January 5, 2006, 10:35 Local	**Registration:**	N444QA
Aircraft:	Cessna 152	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that the purpose of the flight was to take the aircraft out on a maintenance check flight as the aircraft had not flown much in the preceding three months. After about 50 minutes, the pilot returned to the airport. The pilot stated that he had checked for carburetor ice several times during the flight. During the return flight to the airport in mist, the pilot applied carburetor heat and reduced power to descend from 2,000 feet to 1,100 feet. The pilot was setting up for a 45 degree entry to runway 12 when he closed the carburetor heat and applied power. The pilot stated that the engine did not respond and would not "make power." The pilot was unable to get power back to the engine, which eventually lost all power before he initiated a forced landing to an open sand pit. During the landing roll, the airplane nosed over. A post-crash inspection of the engine found that the engine was able to be started. Due to impact damage, the engine was run only for a short time before it was shut down. According to a carburetor icing probability chart, the weather conditions was conducive for serious carburetor icing at cruise power.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Encounter with carburetor icing conditions while maneuvering for the downwind which resulted in a loss of engine power due to carburetor ice. The aircraft nosing over during the landing roll in soft sand was a factor.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: APPROACH - VFR PATTERN - BASE LEG/BASE TO FINAL

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

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

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

Findings
3. (F) TERRAIN CONDITION - SOFT

Occurrence #4: NOSE OVER
Phase of Operation: LANDING - ROLL

Factual Information

On January 5, 2006, about 1035 Pacific standard time, a Cessna 152, N444QA, registered to and operated by Kelso Flight Services as a 14 CFR Part 91 maintenance check flight in the local area, experienced a loss of engine power while returning to the Kelso-Longview Airport, Kelso, Washington. The pilot initiated a forced landing to a sand pit about one mile south of the airport. During the landing roll, the airplane nosed over. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft was substantially damaged and the commercial pilot, the sole occupant, was not injured. The flight departed from Kelso about 50 minutes prior to the accident.

During a telephone interview and in a subsequent written statement, the pilot reported that the purpose of the flight was to take the aircraft out on a maintenance check flight as the aircraft had not flown much in the preceding three months. After about 50 minutes, the pilot was returning to the airport. The pilot stated that he had checked for carburetor ice several times during the flight. During the return flight to the airport in mist, the pilot applied carburetor heat and reduced power to descend from 2,000 feet to 1,100 feet. The pilot was setting up for a 45 degree entry to runway 12 when he closed the carburetor heat and applied power. The pilot stated that the engine did not respond and would not "make power." The pilot was unable to get power back to the engine, which eventually lost all power before he initiated a forced landing to an open sand pit. During the landing roll, the airplane nosed over.

A post-crash inspection of the engine by an NTSB Senior Air Safety Investigator after the aircraft was removed from the sand pit to a facility located in Redmond, Oregon, found that the engine was able to be started. Due to impact damage, the engine was run only for a short time before it was shut down.

At 1035, the Kelso-Longview METAR weather was reported as a temperature of 48 degrees F, dew point of 37 degrees F. The altimeter was 30.23" Hg. The wind was from 150 degrees at five knots. Scattered clouds were at 8,000 feet. The carburetor icing probability chart indicates, for this temperature and dew point, a probability of serious carburetor icing at cruise power.

Pilot Information

Certificate:	Commercial	**Age:**	72,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2	**Last FAA Medical Exam:**	May 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	September 1, 2005
Flight Time:	1200 hours (Total, all aircraft), 700 hours (Total, this make and model), 1170 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N444QA
Model/Series:	152	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Utility	**Serial Number:**	15282123
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	August 1, 2005 100 hour	**Certified Max Gross Wt.:**	1670 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	12940 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-235
Registered Owner:	BB&L Co LLC	**Rated Power:**	110 Horsepower
Operator:	Kelso Flight Services	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KLS,20 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	10:55 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Few / 3500 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Broken / 4600 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	130°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.21 inches Hg	**Temperature/Dew Point:**	9°C / 3°C
Precipitation and Obscuration:	Light - Showers - Rain		
Departure Point:	Kelso, WA (KLS)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	Kelso-Longview KLS	**Runway Surface Type:**	
Airport Elevation:	20 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced 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:**	46.107223,-122.883331

Administrative Information

Investigator In Charge (IIC):	Eckrote, Debra
Additional Participating Persons:	Jack Swensen; FAA/FSDO; Hillsboro, OH
Original Publish Date:	May 30, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=63053