Aviation Investigation Final Report

Location:	Middleton, Idaho	**Accident Number:**	SEA03LA093
Date & Time:	June 4, 2003, 20:10 Local	**Registration:**	N7238M
Aircraft:	Cessna 175	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the Cessna 175 departed Caldwell, Idaho, with 52 gallons of fuel (43 gallons usable total or 4.5 gallons unusable fuel per tank) and flew 1 hour and 40 minutes to his destination, Echo, Oregon. He subsequently departed Echo and flew back to his origination airport arriving over the airstrip about 1 hour and 20 minutes later. During the return flight he selected the left tank to balance out the fuel load and left the fuel selector in that position. While overhead his destination the engine lost power, and having no time to troubleshoot the problem, and not wanting to risk crossing high trees in an attempt to reach the end of the runway, he executed a forced landing off airport. The aircraft rolled through uneven terrain incurring substantial damage. An FAA inspector examined the aircraft and found approximately one gallon of fuel in the left tank and approximately 14 gallons of fuel in the right. The first item on the Cessna 175 Owner's Manual "Before Landing" checklist was: Set fuel selector to "both tanks."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to follow the checklist which led to fuel starvation and subsequent loss of engine power. A contributing factor was the uneven terrain at the landing site.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings
1. (C) FLUID,FUEL - STARVATION
2. (C) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND
3. FUEL SUPPLY - NOT SELECTED - PILOT IN COMMAND

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

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

Findings
4. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On June 4, 2003, approximately 2010 mountain daylight time, a Cessna 175, N7238M, registered to and being flown by a commercial pilot, sustained substantial damage during the landing roll following a total loss of power and forced landing one mile southwest of Middleton, Idaho. The pilot was uninjured. Visual meteorological conditions existed and no flight plan had been filed. The flight, which was personal, was operated under 14CFR91, and originated from Echo, Oregon, approximately 152 nautical air miles northwest of the accident site approximately 1850.

The pilot reported departing Hubler Field (about one mile southwest of Middleton, Idaho) and landing at nearby Caldwell Industrial airport (Caldwell, Idaho) where he topped off with fuel. He then departed Caldwell with 52 gallons of fuel i.e., 43 gallons usable or 4.5 gallons unusable fuel per tank (refer to ATTACHMENT OM-I) flying one hour and 40 minutes to Echo, Oregon. Sometime after departing Echo he noted the right fuel tank showing one-quarter to one-half a tank and the left tank showing three-quarters. He then selected the left tank and continued the flight on that tank. While overflying his destination landing site (Hubler Field) to assess wind conditions approximately 500 feet above ground in a wings level attitude, the engine abruptly ceased operating. The pilot reported having no time to troubleshoot and, rather than risk crossing high trees in an attempt to reach the end of the runway, he maneuvered to the north and landed in a field. During the landing roll the aircraft rolled through a "dip" in the terrain, which the pilot attributed the damage to.

Following the forced landing, the pilot's brother arrived at the site and reportedly observed fuel in both left and right fuel tanks. The fuel selector was moved to the BOTH position and the engine was successfully restarted and operated satisfactorily. The pilot left the fuel selector in the BOTH position, and the following day several FAA inspectors examined the aircraft finding one gallon of fuel in the left tank and approximately 14 or more gallons in the right tank. It was noted that the aircraft was positioned with the right wing approximately 5 degrees lower than the left wing.

The Cessna 175 Owner's Manual notes in the "operating checklist section:"

BEFORE LANDING.
(1) Set fuel selector to "both tanks."
(2) . . . . .

(refer to ATTACHMENT OM-II)

Pilot Information

Certificate:	Commercial; Private	**Age:**	42,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	November 29, 2001
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	August 3, 2002
Flight Time:	2942 hours (Total, all aircraft), 212 hours (Total, this make and model), 2527 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N7238M
Model/Series:	175	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	55538
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	August 2, 2002 Annual	**Certified Max Gross Wt.:**	2350 lbs
Time Since Last Inspection:	29 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3290 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	GO-300A
Registered Owner:	Hubler, Bruce F. & Becky L.	**Rated Power:**	175 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	EUL,2432 ft msl	**Distance from Accident Site:**	3 Nautical Miles
Observation Time:	20:15 Local	**Direction from Accident Site:**	192°
Lowest Cloud Condition:	Clear	**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	310°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.97 inches Hg	**Temperature/Dew Point:**	24°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Echo, OR (OL02)	**Type of Flight Plan Filed:**	None
Destination:	Caldwell, ID (ID00)	**Type of Clearance:**	None
Departure Time:	18:50 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Hubler Field ID00	**Runway Surface Type:**	
Airport Elevation:	2385 ft msl	**Runway Surface Condition:**	Unknown
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:**	43.696388,-116.633888

Administrative Information

Investigator In Charge (IIC):	McCreary, Steven
Additional Participating Persons:	Clifford Smart; FAA FSDO; Boise, ID
Original Publish Date:	March 2, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=57138