



National Transportation Safety Board Aviation Accident Final Report

Location:	Tuckerman, AR	Accident Number:	FTW02LA137
Date & Time:	05/02/2002, 1645 CDT	Registration:	N3146S
Aircraft:	Cessna 182G	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

While in cruise flight, approximately two hours and ten minutes after departure, the engine lost power, and the pilot was unable to restart the engine. During the forced landing, the airplane touched down in a rice field. During the landing roll, the nose landing gear impacted a levee, and the airplane nosed over coming to rest inverted. Earlier in the day during a fuel stop, an individual loaned the pilot a pair of needle nose pliers after the pilot stated that the locking tabs were broken from the cap on the left main fuel tank. The individual suggested to the pilot that he purchase a new fuel cap; however, the pilot did not purchase one. At the departure airport, ground personnel reported to the pilot that the left main tank had a "bad fuel leak." After fueling the airplane, the pilot duct taped the left main fuel tank filler cap. An examination of the fuel system by an FAA inspector revealed that the left fuel filler cap was loose and its clip was broken. No fuel was found in either tank, and there was no evidence of a fuel spill; however, there was blue streaking from the left fuel tank filler port.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's operation of the airplane with a known equipment deficiency, which resulted in fuel leakage and a loss of engine power due to fuel exhaustion. A contributing factors was the lack of suitable terrain for the forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CRUISE

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) FUEL SYSTEM,CAP - LEAK
3. FLUID,FUEL - SIPHONING
4. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. (F) TERRAIN CONDITION - NONE SUITABLE
6. TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

On May 2, 2002, at 1645 central daylight time, a Cessna 182G single-engine airplane, N3146S, was substantially damaged when it impacted a levee during a forced landing following a loss of engine power near Tuckerman, Arkansas. The airplane was registered to Silver Air Inc. of Wilmington, Delaware, and operated by Silverwing Aviation of Searcy, Arkansas. The commercial pilot sustained minor injuries, and his passenger was seriously injured. Visual meteorological conditions prevailed, and an instrument flight rules (IFR) flight plan was filed and activated for the 14 Code of Federal Regulations Part 91 personal flight. The cross-country flight departed from Sherman Army Field (FLV), Fort Leavenworth, Kansas, approximately 1430, for a destination of Newport, Arkansas.

The 1050-hour pilot reported in the Pilot/Operator Aircraft Accident Report, (NTSB Form 6120.1/2), that he "had the airplane topped off before leaving FLV." He took off and climbed out with the fuel selector in the "BOTH" position. After leveling off, he switched the fuel selector to the "LEFT" tank, and flew for approximately 1 hour and 20 minutes, then switched to the "RIGHT" tank. The engine sputtered after just a few minutes so he checked the carburetor heat and switched back to "BOTH". "The engine began running normal again." The pilot stated that they were in VFR conditions and could see his destination, so he canceled his IFR clearance. The engine lost power and his attempt to restart it was unsuccessful, so he landed in a field short of his destination. During the landing roll in the field, the nose landing gear impacted a levee and separated. The airplane nosed over and came to rest inverted.

According to an FAA inspector, earlier in the day, the airplane departed Newport for Fort Leavenworth. During a fuel stop at Harrisonville, Missouri, an individual loaned the pilot a pair of needle nose pliers after the pilot stated that the locking tabs were broken from the cap on the left main fuel tank. The individual suggested to the pilot that he purchase a new fuel cap; however, the pilot did not purchase one. The airplane was serviced with 46.390 gallons of 100LL fuel, and the airplane departed for the 15 minute flight to Fort Leavenworth. After landing, the pilot purchased approximately 27 gallons of 100LL fuel from a self service pump. Ground personnel reported to the pilot that the left main tank had a "bad fuel leak," and the pilot stated that the cap was broken. The pilot was offered duct tape, and he taped the left main fuel tank filler cap with approximately 2 square feet of the duct tape. During the flight to Newport, approximately two miles west of Tuckerman, the engine lost power. The airplane was found in a rice field about 60 feet short of a private grass strip, which the pilot was attempting to land.

An examination of the airplane, by FAA inspectors who responded to the accident site, revealed that the landing gear, the firewall, and the left wing spar were damaged. Examination of the fuel system revealed that the left fuel filler cap was loose and the clip was broken. No fuel was found in either tank, and there was no evidence of a fuel spill; however, there was blue streaking from the left fuel tank filler port to the trailing edge of the wing.

The total fuel capacity of the Cessna 182G is 65 gallons

Pilot Information

Certificate:	Commercial	Age:	25, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	12/12/2001
Occupational Pilot:		Last Flight Review or Equivalent:	02/13/2002
Flight Time:	1050 hours (Total, all aircraft), 18 hours (Total, this make and model), 927 hours (Pilot In Command, all aircraft), 125 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N3146S
Model/Series:	182G	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	18255646
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	04/27/2002, Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:	10 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3495.6 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-470-R
Registered Owner:	Silver Air, Inc.	Rated Power:	230 hp
Operator:	Silverwing Aviation	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	JBR, 262 ft msl	Distance from Accident Site:	28 Nautical Miles
Observation Time:	1653 CDT	Direction from Accident Site:	70°
Lowest Cloud Condition:		Visibility	10 Miles
Lowest Ceiling:	Overcast / 2200 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	14° C / 11° C
Precipitation and Obscuration:			
Departure Point:	Leavenworth, KS (FLV)	Type of Flight Plan Filed:	IFR
Destination:	Newport, CT (M19)	Type of Clearance:	IFR
Departure Time:	1430 CDT	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	35.726944, -91.242778

Administrative Information

Investigator In Charge (IIC):	Douglas D Wigington	Report Date:	09/30/2003
Additional Participating Persons:	Michael L Wilson; FAA FSDO; Little Rock, AR		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).