



Aviation Investigation Final Report

Location:	PEMBERTON, New Jersey	Accident Number:	IAD98LA063
Date & Time:	May 25, 1998, 15:00 Local	Registration:	N6577E
Aircraft:	Cessna 175	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he added 20 gallons of fuel, prior to his departure, which brought the total fuel onboard between 45 and 48 gallons. He purchased this fuel at a local airport and transported it to his airplane at the lake, since no fueling services were available at Lake Hinkley. The pilot estimated the flight would take him about 2 1/2 hours to complete. About 2 hours after his departure, the engine lost power, and the pilot 'landed the airplane in a corn field, out of fuel.' He stated that he had no mechanical problems with the airplane, and that the fuel gages gradually decreased during the flight; however, he 'would not rely on the fuel gages in a forty year old airplane.' Examination of the airplane revealed that both fuel tanks were intact and empty. According to a representative of the engine's manufacturer, the fuel consumption for the model engine was 8 to 10 gallons per hour. The pilot reported 250 hours of total flight experience, 10 hours of which were in the make and model of the accident airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate fuel consumption calculations and his improper in-flight decision to continue flying with an inadequate fuel supply.

Findings

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

Findings

1. (C) FUEL CONSUMPTION CALCULATIONS - INADEQUATE - PILOT IN COMMAND
2. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. (C) FLUID,FUEL - EXHAUSTION

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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

Phase of Operation: EMERGENCY LANDING

Factual Information

On May 25, 1998, about 1500 eastern daylight time, a Cessna 175, N6577E, was substantially damaged during a forced landing near Pemberton, New Jersey. The certificated private pilot and passenger were not injured. Visual meteorological conditions prevailed and no flight plan was filed for the flight destined for the Philadelphia Seaplane Base (9N2), Essington, Pennsylvania. The personal flight was conducted under 14 CFR Part 91.

The pilot reported that prior to his departure from Lake Hinkley, New York, at 1245, he added 20 gallons of fuel, which brought the total fuel onboard between 45 and 48 gallons. He stated that he purchased this fuel at a local airport and transported it to his airplane at the lake, since no fueling services were available at Lake Hinkley. The pilot estimated the flight would take him about 2 1/2 hours to complete. He reported that while en route, the airplane was operating at a decreased power level, requiring him to continually add power to maintain the same RPM amount and "keep it on the step." About 30 minutes from his destination, at 1500, the engine lost power, and the pilot "landed the airplane in a corn field, out of fuel." He stated that he had no mechanical problems with the airplane, and that the fuel gages gradually decreased during the flight, however he "would not rely on the fuel gages in a forty year old airplane."

A Federal Aviation Administration Inspector reported that the airplane impacted the field on its water floats, and slid to a stop in an upright position. Both fuel tanks were examined by the Inspector, and found intact and empty.

A mechanic, who inspected the airplane after the accident, reported that the magneto oil seals were broken and oil was discovered leaking into both magnetos. Spark plug wires were found "frayed" and "old" and according to the mechanic, their malfunction would have caused an increased fuel consumption by the engine.

According to a representative of the engine's manufacturer, the fuel consumption for the model engine was 8 to 10 gallons per hour. The representative also stated that the engine would not consume much more fuel than 10 gallons per hour if the magneto timing was incorrect, oil was leaking inside the magnetos, and their harnesses were in poor condition.

The pilot reported 250 hours of total flight experience, 10 hours of which were in the make and model of the accident airplane.

Pilot Information

Certificate:	Private	Age:	47, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Unknown
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 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	March 12, 1998
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	250 hours (Total, all aircraft), 10 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N6577E
Model/Series:	175 175	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	56077
Landing Gear Type:	Float	Seats:	4
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O&VO-360 SER
Registered Owner:	JOSEPH REED WILSON	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	WRI ,133 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	15:05 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Unknown	Visibility	5 miles
Lowest Ceiling:	Broken / 2000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	21°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LAKE HINKLEY , NY (NONE)	Type of Flight Plan Filed:	None
Destination:	ESSINGTON , PA (9N2)	Type of Clearance:	None
Departure Time:	14:00 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	Vegetation
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Cain, Jim
Additional Participating Persons:	JOHN WALLEY; PHILIDELPHIA , PA
Original Publish Date:	September 7, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=28302

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).