



National Transportation Safety Board Aviation Accident Final Report

Location:	Fajardo, PR	Accident Number:	MIA03LA176
Date & Time:	09/01/2003, 1130 AST	Registration:	N8578U
Aircraft:	Cessna 172F	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

According to the pilot, after taking off, at an altitude of about 300 feet, the airplane's engine lost power. The pilot performed a 180-degree turn back to the runway, but due to the low altitude was unable to reach the runway. He elected to land in a field about 1/2 mile from the runway. The pilot explained it had been close to 3 weeks since the airplane had last been flown. He said he drained large quantities of water from both the left and right wing fuel tank sump ports. He fueled the airplane with a total of about 29 gallons of 100 LL aviation fuel and drained a total of a gallon of fuel from both wing tanks, with "no" indication of water in the fuel. The individual who recovered the airplane from the field stated when up righting the engine, a noticeable amount of water poured out of the carburetor. An Airframe and Power plant mechanic stated to the Federal Aviation Administration inspector that when the carburetor bowl drain plug was removed, only water came out of it, no fuel at all. At the time of the accident no water was utilized at the seen. Weather reports support that there was no rain in the area between the accident and the time the airplane was removed from the farm.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate aircraft preflight resulting in the airplane being operated with water contamination in the fuel system, and the loss of engine power.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. FUEL SYSTEM - CONTAMINATION, WATER
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - ATTEMPTED - PILOT IN COMMAND

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

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

Findings

4. TERRAIN CONDITION - HIGH VEGETATION
5. TERRAIN CONDITION - DITCH

Factual Information

On September 1, 2003, about 1130 Atlantic standard time, a Cessna 172F, N8578U, owned and operated by an individual, lost engine power, and impacted with the ground during a forced landing, near Fajardo, Puerto Rico. Visual meteorological conditions prevailed at the time, and no flight plan was filed. The personal flight was conducted under 14 CFR Part 91. The airplane was substantially damaged. The airline transport-rated pilot reported no injuries. The flight was originating at the time.

According to the pilot's written report, after taking off at an altitude of about 300 feet the airplane's engine lost power. He elected to performed a power off landing in a cane field, the nose wheel of the airplane got caught in a ditch which resulted in the airplane coming to a stop upside down.

A witness stated he watched N8578U take off, and was climbing out when he heard the engine "sputter about two times". The airplane continued to climb before the engine "quit". He observed the airplane bank left and right several times before making a "sharp" left turn about 180 degrees. He lost site of the airplane just before it hit the ground, as he reached the accident site he observed a man getting out of the upside down airplane.

In a phone conversation with the NTSB investigator-in-charge a couple of days after the accident, the pilot explained it had been close to 3 weeks since the airplane had been flown. He went on to explain, that he drained large quantities of water from both the left and right wing fuel tank sump ports. He fueled the airplane with a total of about 29 gallons of 100 LL aviation fuel and drained a total of a gallon of fuel from both wing tanks again with "no" indication of water in the fuel. He also stated, the engine run up check prior to takeoff went "uneventful".

The individual who recovered the airplane from the field stated he removed the engine and wings from the fuselage to facilitate transportation of the airplane, when up righting the engine, a noticeable amount of water poured out of the carburetor. An airframe and powerplant mechanic stated to the Federal Aviation Administration inspector that when the carburetor bowl drain plug was removed, only water came out of it, no fuel at all.

The Federal Aviation Administration inspector stated that the pilot said after loss of engine power, he maneuvered the airplane 180 degrees in an attempt to return to the runway. Due to the low altitude, he was forced to land in a nearby farm. At the time of the accident no water was utilized at the seen. Weather reports support that there was no rain in the area between the accident and the time the airplane was removed from the farm.

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	64, 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 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	05/27/2003
Occupational Pilot:		Last Flight Review or Equivalent:	05/30/2001
Flight Time:	21642 hours (Total, all aircraft), 30 hours (Total, this make and model), 2 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N8578U
Model/Series:	172F	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17252478
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	07/31/2003, Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	49 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2247 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-360-A3A
Registered Owner:	On file	Rated Power:	180 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	TJSJ, 9 ft msl	Distance from Accident Site:	21 Nautical Miles
Observation Time:	1156 AST	Direction from Accident Site:	120°
Lowest Cloud Condition:	Few / 2500 ft agl	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	31 °C / 25 °C
Precipitation and Obscuration:			
Departure Point:	Fajardo, PR (TJFA)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1128 EDT	Type of Airspace:	

Airport Information

Airport:	Diego Jimenez Torres (TJFA)	Runway Surface Type:	Asphalt
Airport Elevation:	64 ft	Runway Surface Condition:	Unknown
Runway Used:	8	IFR Approach:	Unknown
Runway Length/Width:	3600 ft / 75 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	18.307778, -65.661667

Administrative Information

Investigator In Charge (IIC):	Alan J Yurman	Report Date:	12/30/2003
Additional Participating Persons:	Carlos Aguedo; FAA; San Juan, PR		
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).