



National Transportation Safety Board Aviation Accident Final Report

Location:	FLORENCE, SC	Accident Number:	MIA97LA055
Date & Time:	01/01/1997, 1505 EST	Registration:	N2205Z
Aircraft:	Piper PA-28-181	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot was cleared for an instrument approach in instrument flight conditions. The right fuel gauge indicated empty, and the left fuel gauge indicated about 3 gallons of fuel. The engine started to sputter and quit. The airplane became VFR and collided with trees and a house. The pilot informed law enforcement personnel that the airplane ran out of fuel. There was no odor or visible evidence of fuel present at the crash site. About 1/2 ounce of fuel was drained from the carburetor bowl. The propeller and flywheel were replaced. The engine started and developed power.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's improper management of fuel resulting in a total loss of engine power due to fuel exhaustion.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) FUEL MANAGEMENT - IMPROPER - PILOT IN COMMAND

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. OBJECT - TREE(S)
4. TERRAIN CONDITION - RESIDENTIAL AREA

Factual Information

On January 1, 1997, about 1505 eastern standard time, a Piper PA-28-181, registered to Enterprise Seven Leasing Inc., operated as a 14 CFR Part 91 personal flight, experienced a total loss of engine power while on an instrument approach to Florence Regional Airport, Florence, South Carolina, and crashed into a residential area. Instrument meteorological conditions prevailed and an IFR flight plan was filed. The airplane sustained substantial damage. The commercial pilot/pilot-in-command (PIC), and a private pilot occupying the left front seat reported serious injuries. One passenger sustained serious injuries, and the other passenger sustained minor injuries. The flight originated from Miami, Florida, about 4 hours 22 minutes before the accident.

The PIC stated he filed an IFR flight plan listing himself as the PIC. They departed Miami en route to Savannah, Georgia, with the private pilot flying the airplane. Upon reaching Jacksonville, Florida, he checked weather and requested a clearance direct to Florence, South Carolina. They were handed off to Florence Approach Control about 20 miles south of Florence. The left fuel gauge indicated 5 to 6 gallons of fuel. The right fuel gauge was empty. They were cleared for the ILS approach, and handed off to Florence tower. The left fuel gauge indicated about 3 gallons of fuel remaining. They were established on the localizer course and just inside the outer marker at 1,800 feet, 4.6 miles from the runway when the engine started to sputter. The private pilot turned the boost pump on, switched fuel tanks, rocked the wings and pumped the throttle with negative results. The engine quit. The private pilot established a glide and he declared an emergency. They became VFR at about 800 feet. There were no forced landing areas available. He informed the private pilot that he had the flight controls. The airplane collided with trees and a house. He further stated there was no odor or leakage of fuel present, and there was no known mechanical problem with the airplane. The pilot-in-command informed a Florence Police Department sergeant during an interview that they were on final approach when they ran out of fuel.

A witness stated he heard an airplane overhead. He looked up and saw the airplane come out of the clouds. The engine sputtered and then cut off. The airplane continued towards the east disappearing below the tree line.

Examination of the crash site revealed no odor or visible evidence of fuel. Inspection of the carburetor bowl drain produced less than 1/2 ounce of fuel. No indication of fuel leakage stains were found around the fuel filler cap of either wing. The airplane was transported to a full service maintenance fixed base operator. The propeller and flywheel were replaced with serviceable parts. The engine was started and developed power.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	08/14/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	2050 hours (Total, all aircraft), 1530 hours (Total, this make and model), 1907 hours (Pilot In Command, all aircraft), 73 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N2205Z
Model/Series:	PA-28-181 PA-28-181	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-7990401
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	04/12/1996, Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	150 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4974 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A4M
Registered Owner:	ENTERPRISE SEVEN INC	Rated Power:	181 hp
Operator:	THOMAS M. SNEDDEN	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	5 Miles
Lowest Ceiling:	Overcast / 500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	8° C / 7° C
Precipitation and Obscuration:			
Departure Point:	MIAMI, FL (MIA)	Type of Flight Plan Filed:	IFR
Destination:	(FLO)	Type of Clearance:	IFR
Departure Time:	1043 EST	Type of Airspace:	Class D

Wreckage and Impact Information

Crew Injuries:	2 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious, 1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Serious, 1 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	CARROL A SMITH	Report Date:	08/25/1997
Additional Participating Persons:	MARLENE VAN BEUREN; WEST COLUMBIA, SC		
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/ .		

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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](#).