



National Transportation Safety Board Aviation Accident Final Report

Location:	CHARLESTON, SC	Accident Number:	ATL95LA056
Date & Time:	03/03/1995, 1728 EST	Registration:	N7498R
Aircraft:	PIPER PA-28-140	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

THE PILOT STATED THAT THE AIRCRAFT WAS FUELED PRIOR TO HIS DEPARTURE. ABOUT 2 HOURS AFTER DEPARTURE, THE PILOT REPORTED THAT THE AIRCRAFT ENGINE BEGAN TO RUN ROUGH. HE STATED THAT THE FUEL PRESSURE DROPPED, AND HE SWITCHED FUEL TANKS. WHILE ATTEMPTING TO CORRECT THE PROBLEM, THE AIRCRAFT ENGINE STOPPED PRODUCING POWER, AND THE PILOT WAS FORCED TO ATTEMPT AN EMERGENCY LANDING ON A HIGHWAY. DURING THE LANDING ATTEMPT, THE AIRCRAFT STRUCK TREES, AND CRASHED INTO THE TERRAIN. EXAMINATION OF THE AIRCRAFT FUEL SELECTOR VALVE REVEALED THAT THE DETENT WASHER WAS BROKEN, AND THAT 1/4 OF THE WASHER WAS MISSING. THERE WAS NO NOTICEABLE DETENT, THE SELECTOR ROTATED FREELY, AND WAS EASILY MOVED TO AN IN-BETWEEN TANKS OR 'OFF' POSITION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the position washer in the fuel selector valve, which resulted in the fuel starvation of the engine.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FUEL SYSTEM,SELECTOR/VALVE - FAILURE,PARTIAL
2. (C) FLUID,FUEL - STARVATION

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

3. OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On March 3, 1995, at 1728 eastern standard time, a Piper PA-28- 140, N7498R was substantially damaged following a collision with light poles and street signs during a forced landing attempt to a highway near Charleston, South Carolina. The commercial pilot and his passenger received minor injuries in the accident. The aircraft was being operated under the provisions of 14 CFR Part 91 by the pilot. Visual meteorological conditions existed at the time of the accident, and no flight plan had been filed for the flight. The flight departed Elizabeth City, North Carolina at 1430, and was destined for Savannah, Georgia at the time of the accident.

The pilot reported that he obtained fuel in Elizabeth City, North Carolina. He reported that he burned about 10 gallons of fuel from the right tank and then switched fuel tanks. After flying for about one hour and burning about 10 gallons of fuel from the left tank, the aircraft engine began to run rough. He stated that the first indication of trouble was an unusual noise in the engine compartment, followed by a drop in fuel pressure. He stated that after the fuel pressure dropped, and the engine began to run rough, he switched to the right fuel tank. He stated that the engine continued to run rough, and that the engine eventually lost all power. He attempted an emergency landing on a highway. He stated that he struck some trees, and crashed into the terrain during the final descent into the highway.

Examination of the aircraft fuel selector valve revealed that the detent washer was broken and one fourth of the washer was missing. When the selector was rotated, there were no noticeable detents, and the selector was easily rotated to an in-between tanks "off" position.

Pilot Information

Certificate:	Commercial	Age:	43, 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--w/ waivers/lim.	Last FAA Medical Exam:	05/25/1994
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	850 hours (Total, all aircraft), 30 hours (Total, this make and model), 850 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N7498R
Model/Series:	PA-28-140 PA-28-140	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-22053
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	O-320-E2A
Registered Owner:	BOISVERT, JACQUES	Rated Power:	150 lbs
Operator:	REINKEN, STEPHEN	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	CHS, 46 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	1750 EST	Direction from Accident Site:	90°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 14000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	12° C / 3° C
Precipitation and Obscuration:			
Departure Point:	ELIZABETH CITY, NC (ECG)	Type of Flight Plan Filed:	None
Destination:	SAVANNAH, GA (SAV)	Type of Clearance:	None
Departure Time:	1630 EST	Type of Airspace:	Class G

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): ROFF H SASSER, **Report Date:** 08/23/1995

Additional Participating Persons: THOMAS H DAMOUR; 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 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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