



National Transportation Safety Board Aviation Accident Final Report

Location:	Westerly, RI	Accident Number:	NYC03LA060
Date & Time:	03/01/2003, 1455 EST	Registration:	N8547N
Aircraft:	Piper PA-28-235	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot and pilot rated passenger departed with the fuel tanks half-full. They alternated flying duties while performing touch-and-go landings. After three landings, the pilot positioned the fuel selector from the left main fuel tank to the right main fuel tank. During the sixth approach, the pilot rated passenger was manipulating the controls. While turning onto final approach, the pilot rated passenger reduced the throttle to idle and turned the carburetor heat off. While on an approximate 1/2-mile final leg, the airplane flew below the glidepath and drifted to the right. At the time, the pilot was looking out the left side and to the rear of the airplane. The pilot rated passenger input throttle control to correct the descent rate, but the engine did not respond. The pilot rated passenger alerted the pilot to the problem, and the pilot took control of the airplane. He attempted a restart procedure, which included positioning the fuel selector to the left main fuel tank, verifying that the fuel pump was on, and cycling the ignition and throttle. The engine did not restart and the pilot subsequently performed a forced landing into trees about 500 feet short of the runway. The pilot rated passenger reported that his biannual flight review was expired, he had no flight experience within the preceding 12 months, and no flight experience in the make and model accident airplane. Examination of the wreckage by a Federal Aviation Administration inspector did not reveal any pre-impact mechanical malfunctions. The inspector stated that there was fuel in both main fuel tanks, the fuel selector, and the carburetor bowl. Review of FAA-H-8083-3, Airplane Flying Handbook, revealed: "The ability to estimate the distance an airplane will glide to a landing is the real basis of all power-off accuracy approaches and landings. This will largely determine the amount of maneuvering that may be done from a given altitude. In addition to the ability to estimate distance, it requires the ability to maintain the proper glide while maneuvering the airplane."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's delayed remedial action when the airplane flew below the glidepath,

and a total loss of engine power for undetermined reasons.

Findings

Occurrence #1: MISCELLANEOUS/OTHER

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. PROPER GLIDEPATH - NOT MAINTAINED - PILOT PASSENGER
2. LACK OF RECENT EXPERIENCE IN TYPE OF AIRCRAFT - PILOT PASSENGER
3. (C) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

4. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #3: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #4: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: EMERGENCY LANDING

Findings

5. OBJECT - TREE(S)

Factual Information

On March 1, 2003, about 1455 eastern standard time, a Piper PA-28-235, N8547N, was substantially damaged during a collision with trees, while on approach to Westerly State Airport (WST), Westerly, Rhode Island. The certificated private pilot and pilot rated passenger sustained minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

During an interview with a Federal Aviation Administration (FAA) inspector, the pilot stated that prior to the accident flight, all four fuel tanks were half-full. He and the pilot rated passenger completed five touch-and-go landings to runway 25 at WST, while alternating the flying duties. The pilot initially departed with the fuel selector positioned to the left main fuel tank, and after the third landing, he selected the right main fuel tank. He further stated that the pilot rated passenger was manipulating the controls during the sixth approach.

During an interview with a Westerly police officer, the pilot stated that the engine lost power on final approach with the pilot rated passenger at the controls. The pilot attempted to switch fuel tanks and "throttle up," but the airplane struck trees prior to the runway.

During an telephone interview with a Safety Board investigator, the pilot stated that during the sixth approach, while on a base leg for runway 25, the engine lost all power. The pilot then took control of the airplane from the pilot rated passenger. The pilot verified the fuel pump was on and switched fuel tanks. He cycled the throttle and ignition, but the engine did not restart. The pilot subsequently performed a forced landing into trees.

According to the pilot's written statement, the engine did not respond to throttle input while on final approach, about 1/2 mile from the runway. He applied full throttle, switched from the left main fuel tank to the right main fuel tank, verified the fuel pump was on, and cycled the ignition key. The engine did not restart and the pilot performed a forced landing into trees.

During a subsequent telephone interview with a Safety Board investigator, the pilot stated that he could not remember which main fuel tank he switched to after the power loss. He further stated that the tip tanks were not used during the flight, and the fuel selector was always positioned to a main fuel tank.

The pilot rated passenger reported to an FAA inspector that while on final approach for the sixth landing, he turned the carburetor heat off and reduced the throttle to idle power. The airplane settled below glidepath, and drifted right of centerline. He attempted to add power, but the engine did not respond. The pilot rated passenger then notified the pilot, and the pilot attempted to restart the engine. The restart attempt included positioning the fuel selector to the left main tank. The pilot rated passenger further stated that his medical certificate had expired, he had no flight experience within the preceding 12 months, and no flight experience in the make and model accident airplane. However, the pilot rated passenger listed 15 hours of pilot in command experience for the make and model accident airplane on an NTSB Pilot/Operator Aircraft Accident Report form.

A witness to the accident was in an airplane at WST, holding short of runway 25. He heard the pilot of a Piper report base leg, and did not hear any further transmissions from the pilot. The witness then observed the accident airplane on an approximate 1/2-mile final approach to the runway. The accident airplane appeared to be low, and looked like it was going to land in trees. The propeller was turning, but the witness could not determine engine power or noise.

Examination of the wreckage by an FAA inspector did not reveal any pre-impact mechanical malfunctions. The inspector observed the wreckage in a nose down, near vertical attitude, approximately 500 feet from the approach end embankment of runway 25. The left wing tip, including tip tank, had separated from the left wing; and the left wing had separated at the wing root. The left main fuel tank contained residual fuel, and there was a fuel spill in the vicinity of the wreckage. The right wing remained attached to the airframe, and fuel flowed from the right main fuel tank when the fuel cap was removed. One propeller blade was bent aft, and the other was slightly twisted. The mixture and propeller controls were found full forward. The throttle was found about 3/4-inch from the full forward position, and the carburetor heat was off. The fuel selector was found positioned to the left main fuel tank.

Examination of the engine by an FAA inspector revealed that fuel was present in the fuel selector and carburetor bowl, and it appeared absent of contamination. The muffler was bent smoothly with no cracks. The inspector was able to confirm crankshaft and camshaft continuity.

Review of FAA-H-8083-3, Airplane Flying Handbook, revealed:

"The ability to estimate the distance an airplane will glide to a landing is the real basis of all power-off accuracy approaches and landings. This will largely determine the amount of maneuvering that may be done from a given altitude. In addition to the ability to estimate distance, it requires the ability to maintain the proper glide while maneuvering the airplane."

The reported weather at WST, at 1453, was: wind from 200 degrees at 8 knots, visibility 10 miles, few clouds at 3,200 feet, overcast ceiling at 5,000 feet, temperature 37 degrees F, dew point 30 degrees F, altimeter 30.23 inches Hg.

Review of an FAA Carburetor Icing Probability Chart revealed "Serious Icing at Cruise Power" for the given temperature and dew point.

Pilot Information

Certificate:	Private	Age:	58, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	06/03/2001
Occupational Pilot:		Last Flight Review or Equivalent:	04/20/2001
Flight Time:	300 hours (Total, all aircraft), 153 hours (Total, this make and model), 162 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Co-Pilot Information

Certificate:	Private	Age:	54, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/10/2000
Occupational Pilot:		Last Flight Review or Equivalent:	08/17/1999
Flight Time:	1000 hours (Total, all aircraft), 15 hours (Total, this make and model), 1000 hours (Pilot In Command, all aircraft), 0 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8547N
Model/Series:	PA-28-235	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-11346
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	10/04/2002, Annual	Certified Max Gross Wt.:	2900 lbs
Time Since Last Inspection:	15 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4100 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540
Registered Owner:	Reynaldo Texidor	Rated Power:	235 hp
Operator:	Reynaldo Texidor	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	WST, 81 ft msl	Distance from Accident Site:	
Observation Time:	1453 EST	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 3200 ft agl	Visibility	10 Miles
Lowest Ceiling:	Overcast / 5000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	3°C / -1°C
Precipitation and Obscuration:			
Departure Point:	Westerly, RI (WST)	Type of Flight Plan Filed:	None
Destination:	(WST)	Type of Clearance:	None
Departure Time:	1450 EST	Type of Airspace:	Class G

Airport Information

Airport:	Westerly State Airport (WST)	Runway Surface Type:	Asphalt
Airport Elevation:	81 ft	Runway Surface Condition:	Dry
Runway Used:	25	IFR Approach:	None
Runway Length/Width:	4010 ft / 100 ft	VFR Approach/Landing:	Touch and Go; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	2 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	41.349444, -71.803333

Administrative Information

Investigator In Charge (IIC):	Robert J Gretz	Report Date:	02/05/2004
Additional Participating Persons:	Mary Gabriel; FAA FSDO-01; Boston, MA		
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](#).