National Transportation Safety Board
Washington, DC 20594

Printed on : 03/26/2015 08:16:16 AM

Brief of Accident

Adopted 10/21/2010

ERA09LA380
File No. 27152 | 07/04/2009 | Westerly ,RI | Aircraft Reg No. N4898Y | Time (Local): 17:20 EDT

Make/Model:	Piper/PA-25-235
Engine Make/Model:	Lycoming / O-540
Aircraft Damage:	Substantial
Number of Engines:	1
Operating Certificate(s):	None
Type of Flight Operation:	Banner Tow
Reg. Flight Conducted Under:	Part 91: General Aviation

	Fatal	Serious	Minor/None
Crew	0	0	1
Pass	0	0	0

Last Depart. Point:	Same as Accident/Incident Location
Destination:	Local Flight, RI
Airport Proximity:	Off Airport/Airstrip

Condition of Light:	Day
Weather Info Src:	Weather Observation Facility
Basic Weather:	Visual Conditions
Lowest Ceiling:	None
Visibility:	
Wind Dir/Speed:	250 / 010 kts
Temperature (°C):	23
Precip/Obscuration:	No Obscuration; No Precipitation

Pilot-in-Command Age: 44

Certificate(s)/Rating(s)
Commercial; Multi-engine Land; Single-engine Land; Glider

Instrument Ratings
Airplane

Flight Time (Hours)

Total All Aircraft:	1334
Last 90 Days:	38
Total Make/Model:	27
Total Instrument Time:	106

*** Note: NTSB investigators may not have traveled in support of this investigation and used data provided by various sources to prepare this aircraft accident report. ***

The commercially-rated pilot flew the accident airplane for almost 4 hours on a banner-tow flight earlier on the day of the accident. He landed, refueled the airplane, detected some water in the fuel strainer sample, and sampled that until no more water was obtained. He then departed on the accident flight, which was another banner-tow mission. That flight lasted about 3 hours. When the airplane was inbound to, and approximately 2 miles from the home airport, and at an altitude of approximately 1,000 feet, the engine lost all power. The pilot described the power loss as "smooth," with no roughness or stumbling. He initially diverted for a golf course, enriched the mixture, applied carburetor heat, and attempted to re-start the engine. The engine did not re-start, and the pilot jettisoned the banner and steered for another emergency landing site that was closer. The airplane was substantially damaged during the landing and rollout. The airplane was equipped with a main fuel tank and an auxiliary fuel tank. Fuel could only be supplied to the engine from the main tank, and a manually-controlled pump was used to pump fuel from the auxiliary tank to the main tank. Only the main tank was equipped with a fuel gauge, and due to the opacity of its enclosure, the gauge was unreadable. Due to conflicting witness reports, the amount and distribution of the fuel on board at the time of the power loss and accident was not able to be definitively determined. Federal Aviation Administration (FAA) inspectors found an unspecified amount of fuel in the carburetor bowl, and obtained a total of about 1/2 ounce of water from the carburetor bowl and the fuel strainer. They did not observe any mechanical conditions or problems that could have resulted in the engine power loss. The inspectors added fuel to the airplane, and the engine started and ran normally.

According to carburetor ice envelope charts, the temperature and dew point values for the approximate time and location of the power loss were such that the airplane was operating in the region denoted as "Serious Icing at Glide Power."
Updated at Oct 21 2010 10:36AM

ERA09LA380
File No. 27152 | 07/04/2009 | Westerly ,RI | Aircraft Reg No. N4898Y | Time (Local): 17:20 EDT

OCCURRENCES

Enroute-cruise - Loss of engine power (total)
Emergency descent - Off-field or emergency landing
Landing-landing roll - Collision with terr/obj (non-CFIT)

FINDINGS

Aircraft-Aircraft systems-Fuel system-Fuel quantity indicator-Damaged/degraded
Aircraft-Aircraft systems-Ice/rain protection system-Intake anti-ice, deice-Not used/operated - C
Environmental issues-Conditions/weather/phenomena-Temp/humidity/pressure-Conducive to carburetor icing-Contributed to outcome - C

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows:
The pilot's failure to use carburetor heat resulting in a complete loss of engine power due to carburetor icing.