



Aviation Investigation Final Report

Location:	Elberta, Alabama	Accident Number:	GAA18CA503
Date & Time:	August 22, 2018, 10:00 Local	Registration:	N88287
Aircraft:	Champion 8GCBC	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Banner tow		

Analysis

The pilot in the tailwheel-equipped airplane reported that, during a banner towing operation, the ground crew attempted to connect the banner to the hook, but the banner did not connect and became caught on the tailwheel. The pilot made several approaches over the field to dislodge the banner. He reported that, during his last attempt to dislodge the banner, he moved the throttle to idle and made a normal descent to drop the banner. The banner remained caught on the tailwheel, and he stopped the descent and then moved the throttle from idle to full power. However, the engine sputtered, and the power did not increase. He then visually and physically confirmed that the mixture was in the full-rich position and that the primer was in the closed-and-locked position. He attempted moving the throttle from idle to full power two more times with no subsequent change in engine power. The pilot subsequently made a forced landing on the southwest corner of the field, and the airplane collided with uneven terrain and trees.

The airplane sustained substantial damage to both wings and the fuselage.

The pilot reported that there were no mechanical malfunctions or failures with the airplane that would have precluded normal operation.

During a postaccident interview, the pilot reported that, during the low-power setting approaches to release the banner, he did not use carburetor heat. The pilot reported that the temperature about the time of the accident was 80°F. The METAR at the nearest airport reported that the dew point about the time of the accident was 72°F. The relative humidity was about 77%. The atmospheric conditions at the time of the accident were conducive to the accumulation of serious carburetor icing. Federal Aviation Administration Special Airworthiness Information Bulletin CE-09-35 recommends the use of carburetor heat when operating in conditions of visible moisture or high humidity while on approach with low-power settings. The pilot's failure to use carburetor heat likely resulted in the accumulation of carburetor icing during the low-power setting approaches and led to the partial loss of engine power.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to use carburetor heat during a low-power setting approach in conditions conducive to carburetor icing, which resulted in a partial loss of engine power.

Findings

Aircraft	(general) - Not used/operated
Aircraft	Powerplant parameters - Not attained/maintained
Environmental issues	Conducive to carburetor icing - Effect on operation
Environmental issues	Tree(s) - Contributed to outcome

Factual Information

History of Flight

Approach	Miscellaneous/other
Approach	Attempted remediation/recovery
Approach	Loss of engine power (partial) (Defining event)
Landing	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial	Age:	46,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 None	Last FAA Medical Exam:	October 3, 2017
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 17, 2017
Flight Time:	(Estimated) 1266.5 hours (Total, all aircraft), 542.5 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Champion	Registration:	N88287
Model/Series:	8GCBC No Series	Aircraft Category:	Airplane
Year of Manufacture:	1974	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	103-74
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	August 17, 2018 100 hour	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2213.4 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360
Registered Owner:		Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	Certificate of authorization or waiver (COA)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KNPA, 28 ft msl	Distance from Accident Site:	14 Nautical Miles
Observation Time:	15:56 Local	Direction from Accident Site:	105°
Lowest Cloud Condition:	Few / 4000 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	30°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gulf Shores, AL (JKA)	Type of Flight Plan Filed:	None
Destination:	Gulf Shores, AL (JKA)	Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	30.411111,-87.578887(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Michael
Additional Participating Persons:	Nina McBride; FAA; Vestavia Hills, AL
Original Publish Date:	September 26, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98136

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