Aviation Investigation Final Report

Location:	NICKLESVILLE, Georgia	**Accident Number:**	ATL98LA081
Date & Time:	June 12, 1998, 11:00 Local	**Registration:**	N87027
Aircraft:	Bellanca 7GCBC	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

The flight was in a valley tracking a power line, and arrived at a point where the pilot executed a 180 degree turn. When he applied full power to climb out of the valley, the engine would not produce full power. The airplane collided with trees as the pilot maneuvered for an emergency landing. Examination of the airplane at the accident site disclosed that there was fuel in both fuel tanks, the gascolator and the carburetor. Both magnetos produced ignition sparks when rotated. The engine examination failed to disclose a mechanical malfunction or component failure. A review of current weather data disclosed that conditions were favorable for the formation of carburetor ice.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power for undetermined reason. A factor was that weather conditions were favorable for the formation of carburetor ice.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

Occurrence #2: FORCED LANDING
Phase of Operation: CRUISE

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

Findings
3. OBJECT - TREE(S)

Factual Information

On June 12, 1998, about 1100 eastern daylight time, a Bellanca 7GCBC , N87027, lost power and collided with trees, near Nicklesville Georgia. The aircraft departed Milledgeville, Georgia, at 0900 for the purpose of conducting a power line patrol. The aircraft was operated under the provisions of Title 14 CFR Part 91, and visual flight rules. Visual meteorological conditions prevailed at the time of the accident, and no flight plan had been filed. The commercial pilot and the passenger received no injuries, and the aircraft was substantially damaged.

According to the pilot, he was tracking a power line between the cities of Gordon and Dublin Georgia, when he turned east to follow a tap line to the Oconee 10 substation. Upon reaching the station, the pilot executed a 180 degree turn, and applied full power to climb out of the valley, but the engine would not produce full power. While maneuvering in the wooded area following the loss OF engine power, the airplane collided with the trees.

According to the FAA, the aircraft's left wing made first contact with trees and separated outboard of the fuel tank. The right wing broke wrapping around the right side of the aircraft under the fuselage, and the fuselage aft of the baggage compartment was buckled from what appeared to be the tail of the aircraft hitting the ground first. The propeller cut through several tree limbs and one blade was bent and twisted forward. The engine was intact and remained attached to the airframe, and fuel was found in both tanks. No presence of water or other contaminates were found in the fuel system. On inspection, six of the eight spark plugs had been firing normal to slightly rich, with the lower plugs showing signs of lead fouling. Examination of the magnetos revealed that the left magneto produced a good spark at least 1/2 inch, while the right magneto produced a weaker spark of 1/8 inch. The propeller was rotated, compression was felt at all cylinders, and the impulse couplings clicked on each stroke confirming the engine's integrity. On July 20, 1998, the FAA inspector conducted an additional test on the right and left magneto to confirm their integrity. According to the FAA inspector both magnetos operated normally.

A review of current weather data disclosed that conditions were favorable for the formation of carburetor ice.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	February 12, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	3229 hours (Total, all aircraft), 1511 hours (Total, this make and model), 3116 hours (Pilot In Command, all aircraft), 108 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bellanca	**Registration:**	N87027
Model/Series:	7GCBC 7GCBC	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	710-74
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	May 1, 1998 100 hour	**Certified Max Gross Wt.:**	1650 lbs
Time Since Last Inspection:	30 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3016 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320-A2D
Registered Owner:	JAY E CODY	**Rated Power:**	150 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	MCN ,354 ft msl	**Distance from Accident Site:**	30 Nautical Miles
Observation Time:	10:53 Local	**Direction from Accident Site:**	230°
Lowest Cloud Condition:	Scattered / 2900 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	13 knots / 18 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	240°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	29°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MILLEDGEVILLE , GA (MLJ)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	08:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	32.609851,-83.629241(est)

Administrative Information

Investigator In Charge (IIC):	Powell, Phillip
Additional Participating Persons:	MARK LAUGHRIDGE; COLLEGE PARK , GA JEFFREY S SMITH; ATLANTA , GA
Original Publish Date:	February 15, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=3997