



# Aviation Investigation Final Report

<b>Location:</b>	ALEXANDER CITY, Alabama	<b>Accident Number:</b>	ATL96LA016
<b>Date &amp; Time:</b>	December 1, 1995, 11:30 Local	<b>Registration:</b>	N53870
<b>Aircraft:</b>	Bellanca 8KCAB	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, while at 4,500 feet msl, the aircraft engine began to run rough, and then lost power. The pilot attempted to execute a forced landing on a roadway, but the aircraft hit trees during the approach, then it impacted the terrain next to the roadway. Examination of the engine revealed that the fuel injector diaphragm and 'O' ring were leaking.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The leaking fuel injector, which created a rich mixture, and caused the aircraft engine to lose power.

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE - NORMAL

#### Findings

1. (C) FUEL SYSTEM,INJECTOR - LEAK  
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Occurrence #2: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY  
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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: EMERGENCY LANDING

Findings

2. OBJECT - TREE(S)

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

## Factual Information

On December 1, 1995, at 1130 central standard time, a Bellanca 8KCAB, N53870, was substantially damaged following a collision with trees and terrain during a forced landing attempt near Alexander City, Alabama. The airline transport pilot 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, and a visual flight rules flight plan was in effect for the flight. The flight departed Columbus, Georgia, at 1045.

The pilot stated that while at cruise flight at 4,500 feet above mean sea level, the aircraft engine began to run roughly, and then stopped producing power. The pilot attempted to execute a forced landing on a roadway, but impacted trees, and the terrain during the approach.

Examination of the aircraft engine revealed that the "O" ring and diaphragm in the fuel injector servo were leaking. The leaking servo resulted in a rich fuel/air mixture and subsequent loss of engine power.

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	37, Female
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	January 10, 1995
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8716 hours (Total, all aircraft), 6 hours (Total, this make and model), 3088 hours (Pilot In Command, all aircraft), 233 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bellanca	<b>Registration:</b>	N53870
<b>Model/Series:</b>	8KCAB 8KCAB	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	225-76
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	May 4, 1995 Annual	<b>Certified Max Gross Wt.:</b>	1800 lbs
<b>Time Since Last Inspection:</b>	85 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1690 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	AEIO-320-E1B
<b>Registered Owner:</b>	MICHELLE C. HILL	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MGM ,221 ft msl	<b>Distance from Accident Site:</b>	40 Nautical Miles
<b>Observation Time:</b>	12:56 Local	<b>Direction from Accident Site:</b>	310°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	230°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	COLUMBUS , GA (CSG )	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	BIRMINGHAM , AL (BHM )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:45 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	32.919624,-85.930297(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sasser, Roff
<b>Additional Participating Persons:</b>	WILLIAM G ELLIOT; BIRMINGHAM , AL
<b>Original Publish Date:</b>	June 7, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=3675">https://data.ntsb.gov/Docket?ProjectID=3675</a>

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