



# Aviation Investigation Final Report

<b>Location:</b>	ATHENS, Georgia	<b>Accident Number:</b>	ATL89LA056
<b>Date &amp; Time:</b>	December 20, 1988, 16:45 Local	<b>Registration:</b>	N17696
<b>Aircraft:</b>	BEECH                      A36	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

WHILE CRUISING AT 6,000', THE PLT FELT AN INTENSE VIBRATION FM THE ENG. POWER WAS REDUCED & A DESCENT WAS BEGUN TOWARD A NEARBY ARPT. BEFORE REACHING THE ARPT, THE ENG LOST POWER & AN EMERGENCY WHEELS-UP LANDING WAS MADE IN AN OPEN FIELD. AN EXAM OF THE ENG REVEALED THE #1 EXHAUST VALVE HAD FAILED. THE VALVE GUIDE WAS BATTERED & BROKEN, AND WAS LOOSE IN ITS BORE. THE BORE WAS FRETTED & HAD BECOME OVERSIZED. THE ENG HAD BEEN OVERHAULED & INSTALLED IN THE ACFT ON 1/20/82 WITH A TOTAL TIME OF 1515 HRS. ACCORDING TO THE LOG BOOK, NEW VALVES & VALVE GUIDES HAD BEEN INSTALLED AT THAT TIME. THE ENG TIME SINCE MAJOR OVERHAUL WAS 1041 HRS.

## Probable Cause and Findings

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

### Findings

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

#### Findings

1. (C) ENGINE ASSEMBLY, VALVE, EXHAUST - FAILURE, TOTAL

Occurrence #2: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: LANDING

Findings

2. WHEELS UP LANDING - PERFORMED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<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>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	March 10, 1988
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	619 hours (Total, all aircraft), 167 hours (Total, this make and model), 491 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BEECH	<b>Registration:</b>	N17696
<b>Model/Series:</b>	A36 A36	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	E1004
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	December 4, 1988 Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>	9 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3330 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-BA
<b>Registered Owner:</b>	BONANZA FIVE, INC.	<b>Rated Power:</b>	285 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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 8000 ft AGL	<b>Visibility</b>	8 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	12 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	17°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	AUGUSTA , GA (DNL )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	CHAMBLEE , GA (PDK )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	16:10 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	807 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	27	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4989 ft / 100 ft	<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>	1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Preston
<b>Additional Participating Persons:</b>	RANDALL P GIBSON; ATLANTA , GA JOHN H CORBETT; ATLANTA , GA DALE CARTER; MARIETTA , GA
<b>Original Publish Date:</b>	November 28, 1989
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=7970">https://data.nts.gov/Docket?ProjectID=7970</a>

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