



# Aviation Investigation Final Report

<b>Location:</b>	BROOMFIELD, Colorado	<b>Accident Number:</b>	DEN82DA141
<b>Date &amp; Time:</b>	July 22, 1982, 09:43 Local	<b>Registration:</b>	N28218
<b>Aircraft:</b>	AMERICAN AA5B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor, 2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE PILOT WAS CONDUCTING LOCAL AREA PLEASURE SIGHTSEEING FLIGHTS WHEN THE AIRCRAFT FAILED TO CLIMB DURING A NORMAL DEPARTURE. SHE LANDED THE AIRCRAFT IN A PLOWED FIELD. INVESTIGATION REVEALED THE FLIGHT WAS CONDUCTED AT A DENSITY ALTITUDE APPROXIMATELY 8,750 FEET. ALSO THE ENGINE WAS EXAMINED AND FOUND NOT CAPABLE OF PRODUCING FULL TAKEOFF RATED POWER.

## 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(PARTIAL) - MECH FAILURE/MALF  
Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

1. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
2. (C) MAINTENANCE - INADEQUATE
3. (C) WEATHER CONDITION - HIGH DENSITY ALTITUDE
4. (C) ENGINE ASSEMBLY,CYLINDER - WORN
5. (C) IGNITION SYSTEM,MAGNETO - CORRODED

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Occurrence #2: FORCED LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 6. (F) TERRAIN CONDITION - OPEN FIELD
- 7. (F) TERRAIN CONDITION - SOFT

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	31,Female
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<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>	July 18, 1981
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	130 hours (Total, all aircraft), 49 hours (Total, this make and model), 62 hours (Pilot In Command, all aircraft), 26 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AMERICAN	<b>Registration:</b>	N28218
<b>Model/Series:</b>	AA5B AA5B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	AA5B0942
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>	92 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	798 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	O-360-A4K
<b>Registered Owner:</b>	TL DOUGHERTY	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>	RAINBOW AVIATION INC.	<b>Operating Certificate(s) Held:</b>	
<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>	Clear	<b>Visibility</b>	50 miles
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	80°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	BROOMFIELD , CO (BJC)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	BROOMFIELD , CO (BJC)	<b>Type of Clearance:</b>	
<b>Departure Time:</b>	09:40 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	JEFERSON COUNTY AIRPORT BJC	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	29	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7498 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 Minor, 1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor, 2 None	<b>Latitude, Longitude:</b>	39.939636,-105.060371(est)

## Administrative Information

**Investigator In Charge (IIC):**

**Additional Participating Persons:**

**Original Publish Date:** July 22, 1983

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=70048>

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