



# Aviation Investigation Final Report

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<b>Location:</b>	Santa Fe, New Mexico	<b>Accident Number:</b>	CEN10CA091
<b>Date &amp; Time:</b>	January 5, 2010, 13:30 Local	<b>Registration:</b>	N28446
<b>Aircraft:</b>	GRUMMAN AMERICAN AA-5B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Flight control sys malf/fail	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot taxied out for the first flight since completion of the airplane's annual inspection. Before taking the active runway the pilot performed an engine run-up and checked the airplane's flight controls for freedom of movement. No anomalies were noted. While on the takeoff roll the pilot attempted to pull the control yoke to facilitate rotation; however, the yoke would not move aft. As the accelerating airplane began to lift off the ground the pilot elected to reduce the throttle to idle, but was unable to lift the airplane's nose for landing. The airplane impacted the runway, the nose landing gear separated, and the airplane went airborne for the second time. The airplane again impacted the runway before coming to rest in an upright and nose-low position. The pilot was able to exit the airplane unassisted. A Federal Aviation Administration inspector responded to the accident site and examined the airplane. The inspector reported that he was unable to find the reason for the restricted elevator control movement.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The restricted elevator control movement for undetermined reasons.

## Findings

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<b>Aircraft</b>	Pitch control - Malfunction
<b>Not determined</b>	(general) - Unknown/Not determined

## Factual Information

### History of Flight

<b>Takeoff</b>	Flight control sys malf/fail (Defining event)
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	84, 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 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 2, 2008
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	October 6, 2008
<b>Flight Time:</b>	6000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 5500 hours (Pilot In Command, all aircraft), 1 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	GRUMMAN AMERICAN	<b>Registration:</b>	N28446
<b>Model/Series:</b>	AA-5B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	AA5B0614
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	December 28, 2009 Annual	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>	0 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5812 Hrs as of last inspection	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360-A4K
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## 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>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	20°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Santa Fe, NM (SAF )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Santa Fe, NM (SAF )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	13:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Santa Fe Municipal SAF	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	6348 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	20	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	8342 ft / 150 ft	<b>VFR Approach/Landing:</b>	None

## 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>	35.616943,-106.089447(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	LeBaron, Timothy
<b>Additional Participating Persons:</b>	Richard S Cramer; Federal Aviation Administration; Albuquerque, NM
<b>Original Publish Date:</b>	May 6, 2010
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=75241">https://data.nts.gov/Docket?ProjectID=75241</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).