



# Aviation Investigation Final Report

<b>Location:</b>	CARTHAGE, Mississippi	<b>Accident Number:</b>	ATL99FA127
<b>Date &amp; Time:</b>	September 11, 1999, 16:22 Local	<b>Registration:</b>	N26801
<b>Aircraft:</b>	Gulfstream American      AA-5A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal, 1 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The owner of the airplane, a pilot-rated passenger, and a second passenger flew up to the owner's farm to photograph timberland that had recently burned in a fire. Throughout most of the flight, the owner was the pilot and temporarily gave the flight controls to the right seat passenger. After taking several pictures with the pilot-rated passenger at the flight controls, he looked up and noticed that several trees were directly in front of the airplane's flight path. He resumed full control of the airplane, applied full power, and pulled back on the control yoke in an attempt to gain altitude. Unable to clear the tops of the trees, the airplane impacted several pine trees and came to rest along the base of the pine trees in an inverted position.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's failure to maintain altitude clearance while maneuvering. A factor was the pine trees.

### Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: MANEUVERING

#### Findings

1. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

2. (F) OBJECT - TREE(S)

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### HISTORY OF FLIGHT

On September 11, 1999, at 1622 central daylight time, a Gulfstream American (formerly Grumman American Aviation Corp.) AA-5A, N26801, collided with trees while maneuvering in Carthage, Mississippi. The airplane was operated by the owner/pilot under the provisions of Title 14 CFR Part 91, and visual flight rules. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight. The commercial pilot received serious injuries, the pilot-rated passenger received fatal injuries, the second passenger received minor injuries, and the airplane sustained substantially damaged. The flight originated from Hawkins Field Airport in Jackson, Mississippi, at 1530.

According to the owner of the airplane, the pilot-rated passenger called him on the morning of the accident and made arrangements to fly with him up to his farm property that afternoon to photograph timberland that had recently burned in a fire. At the time of their departure, the owner was seated in the left front seat, the pilot-rated passenger was seated in the right front seat, and the second passenger was seated in the rear left seat.

After takeoff the pilot was initiated a climb to 3,000 feet and flew a 065 degree magnetic heading. Several minutes into the flight the pilot gave the flight controls to pilot-rated passenger. Once they arrived over the pilot's farm, the pilot regain controls of the airplane. He descended to 1,500 feet msl and flew several circles around the property boundaries. He then relinquished the controls back to the pilot-rated passenger, slid the airplane's canopy open about 4 inches, and began to take photographs.

At one point as the airplane was maneuvered, the pilot heard the stall warning sounding. He looked up and noticed the airspeed indicated 65 knots. He pointed to the airspeed indicator in an effort to advise the passenger, who was then flying the airplane, to increase the airspeed. After taking several pictures, he looked up and noticed that several trees were directly in front of the airplane's flight path. At that time, he resumed control of the airplane and reached for the throttle. He applied full power, while at the same time pulling the yoke back in an attempt to gain altitude. Unable to clear the tops of the trees, the airplane impacted several pine trees, then collided with the ground.

### PERSONNEL INFORMATION

The pilot was born on August 6, 1946. He held Commercial Pilot Certificate No. 2079083, dated February 25, 1998, with airplane single engine land and instrument ratings. He possessed a second class medical certificate, dated August 12, 1999, issued as a special restriction certificate. The two restrictions were, "Must wear corrective lenses for near and

distant vision," and "Must use hearing amplification." According to his logbooks, he had accumulated a total of 961 hours at the time the accident occurred, 871 of which were performed in the AA-5A. He had flown 7 hours within the past 90 days, and 5 hours within the previous 30 days.

The pilot-rated passenger held Private Pilot Certificate No. 171280506, dated June 7, 1990, with airplane single/multiengine land and instrument ratings. His multiengine rating was restricted to VFR flight only. He possessed a third class airman medical certificate, dated January 12, 1998, with the restriction, "Must wear corrective lenses." According to information provided by him on his most recent medical application dated January of 1998, he had accumulated a total of 510 hours at the time of his last examination.

#### AIRCRAFT INFORMATION

The aircraft was manufactured by the Gulfstream Aviation Corp. in 1978. It was equipped with a Textron Lycoming O-320-E2G engine, rated at 150 horsepower, and a McCauley 2-blade, all-metal, fixed pitch propeller. According the airplane's maintenance records, the last annual inspections on the engine and airframe were performed on July 2, 1999, at a tachometer time of 1921.1. At that time, the airframe total time in service was 2844.15. The engine and airframe had accrued 6.31 hours since the last inspections were performed.

#### METEOROLOGICAL INFORMATION

At 1654, weather conditions at Jackson, Mississippi, located 40 miles to the southwest, were clear skies, 10 statute miles visibility, temperature 32 degrees C. (90 degrees F.), dew point 11 degrees C. (52 degrees F.), winds from 090 degrees at 6 knots, and an altimeter setting of 29.94 Hg.

#### WRECKAGE AND IMPACT INFORMATION

The airplane collided with the tress along a flight path of 315 degrees magnetic and came to rest along the base of a gathering of pine trees in an inverted position. The engine and propeller, along with the upper and lower engine cowling, were found separated approximately 60 feet forward from the main wreckage. Chord wise scratches were observed on one propeller blade, while the other exhibited 's' bending. Several tree limbs in the area displayed 45 degree angle lacerations with black paint transfer marks. During the examination of the airframe, flight controls, control cables and control surface attach fittings were examined for system continuity. Flight control continuity was established to the flight controls in the cockpit. The engine's crankshaft was rotated by hand, and valve train continuity was confirmed. The left front seat control yoke was bent. There was no pre or post impact fire.

In the pilot's accident report, he stated that there were no mechanical failures with the airplane at the time the accident occurred.

## MEDICAL AND PATHOLOGICAL INFORMATION

A toxicological protocol on the pilot-rated passenger was performed by the FAA's Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma. No carbon monoxide or cyanide was detected in the blood, and no ethanol or drugs were detected in the urine.

## ADDITIONAL INFORMATION

In addition to the Federal Aviation Administration, parties to the investigation were Textron Lycoming engines.

The aircraft was released to the owner's wife on September 12, 1999.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	53, 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>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	August 12, 1999
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	961 hours (Total, all aircraft), 871 hours (Total, this make and model), 867 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Gulfstream American	<b>Registration:</b>	N26801
<b>Model/Series:</b>	AA-5A AA-5A	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	AA5A0736
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 2, 1999 Annual	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>	6 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2860 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	O-320-E2G
<b>Registered Owner:</b>	PATRICK B. KYLE	<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>	JAN ,346 ft msl	<b>Distance from Accident Site:</b>	40 Nautical Miles
<b>Observation Time:</b>	16:54 Local	<b>Direction from Accident Site:</b>	230°
<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>	6 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	90°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	32°C / 11°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	HAWKINS , MS (HKS )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:30 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>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal, 1 Serious	<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>	1 Fatal, 1 Serious, 1 Minor	<b>Latitude, Longitude:</b>	32.740058,-89.53041 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Wilson, Butch
<b>Additional Participating Persons:</b>	HARRY MCGEE; JACKSON , MS
<b>Original Publish Date:</b>	November 30, 2000
<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=47351">https://data.ntsb.gov/Docket?ProjectID=47351</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](#).