



# **Aviation Investigation Final Report**

Location: MURFREESBORO, Tennessee Accident Number: ATL97LA130

Date & Time: September 1, 1997, 15:40 Local Registration: N437CG

Aircraft: Beech 95-A55 Aircraft Damage: Substantial

**Defining Event:** 3 None

Flight Conducted Under: Part 91: General aviation

### **Analysis**

The pilot stated to the inspector that upon landing at 110 knots airspeed he was unable to stop when full brakes were applied before departing the end of the wet runway. A witness stated that he saw the airplane land about halfway down the runway very fast. The witness, at the accident site, stated that he saw the airplane 'well high on the final approach glidepath', and that the airplane landed 'very fast' and touched down 'about mid field'. The FAA inspector stated, that after the airplane departed the end of the wet runway, it rolled down an embankment collapsing the nose gear and damaging the inboard structure of the left wing ribs, and the nose gear bulkhead on the right side. The flight manual for the Beech 95-A55 states the normal approach speed for this airplane is 87knots.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's excessive airspeed, and improper touch down point during landing, that resulted in the runway end overun. Factors were the wet runway surface, and the embankment at the end of the runway.

### **Findings**

Occurrence #1: OVERRUN
Phase of Operation: LANDING

Findings

- 1. (C) AIRSPEED EXCESSIVE PILOT IN COMMAND
- 2. (C) PROPER TOUCHDOWN POINT NOT ATTAINED PILOT IN COMMAND
- 3. (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION WET

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Occurrence #2: NOSE GEAR COLLAPSED Phase of Operation: LANDING - ROLL

#### Findings

4. (F) TERRAIN CONDITION - DROP-OFF/DESCENDING EMBANKMENT

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#### **Factual Information**

On September 1, 1997, about 1540 central daylight time, a Beech 95-A55, N437CG, sustained substantial damage when it ran off the departure end of runway 36 during landing at Murfreesboro Municipal Airport, Murfreesboro, Tennessee. The airplane was operated by the pilot under the provisions of Title 14 CFR Part 91, and visual flight rules. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed for this business flight. The private pilot and two passengers were not injured. The flight originated from Destin, Florida at 1245, on the same day. The pilot stated to the inspector that upon landing at 110 knots airspeed, he was unable to stop, when full brakes were applied, before departing the end of the wet runway. A witness, at the accident site, stated that he saw the airplane "well high on the final approach glidepath", and that the airplane landed "very fast" and touched down " about mid field". The FAA inspector stated, that after the airplane departed the end of the wet runway, it rolled down an embankment collapsing the nose gear, damaging the inboard structure of the left wing ribs, and the nose gear bulk head on the right side. The inspector found skid marks on the runway, and no mechanical or system malfunctions were identified during the wreckage examination. Runway 36 was 3800 feet in length and made of asphalt. The runway conditions for that day were 84 degrees Fahrenheit and light rain. According to the pilots operating handbook for the Beech 95-A55, the estimated landing roll for this airplane, at 84 degree Fahrenheit temperature, normal approach speed of 87 knots, and under dry conditions would be 1,650 ft.

#### **Pilot Information**

Certificate:	Private	Age:	53,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	August 21, 1997
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	275 hours (Total, all aircraft), 150 hours (Total, this make and model), 168 hours (Pilot In Command, all aircraft), 29 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	Beech	Registration:	N437CG
Model/Series:	95-A55 95-A55	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	TC468
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	March 7, 1997 Annual	Certified Max Gross Wt.:	5100 lbs
Time Since Last Inspection:	25 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	4700 Hrs	Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-470
Registered Owner:	JAMES W HASS	Rated Power:	260 Horsepower
Operator:	TRAVEL METHODS,LLC	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

## Meteorological Information and Flight Plan

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Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MBT ,615 ft msl	Distance from Accident Site:	
Observation Time:	16:00 Local	Direction from Accident Site:	
<b>Lowest Cloud Condition:</b>		Visibility	2.5 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27°C / 22°C
Precipitation and Obscuration:	N/A - None - Rain		
Departure Point:	DESTIN , FL (DTS )	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	12:45 Local	Type of Airspace:	Class G

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## **Airport Information**

Airport:	MURFREESBORO MUNI AIRPORT MBT	Runway Surface Type:	Asphalt
Airport Elevation:	615 ft msl	Runway Surface Condition:	Wet
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	3800 ft / 100 ft	VFR Approach/Landing:	Full stop

# Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	35.849735,-86.389335(est)

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#### **Administrative Information**

Investigator In Charge (IIC): Hicks, Preston

Additional Participating Persons: GEORGE ERDEL;
ANDREW T SCHRADER;

Original Publish Date: January 30, 1998

Last Revision Date: Investigation Class: Class

Note: https://data.ntsb.gov/Docket?ProjectID=3898

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.

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