



Aviation Investigation Final Report

Location:	Hinesville, Georgia	Accident Number:	ATL07FA040
Date & Time:	February 9, 2007, 18:15 Local	Registration:	N506BC
Aircraft:	Beech A36	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The instrument-rated private pilot filed an instrument-flight-rules flight plan and advised the controller that he was operating under visual-flight-rules flight at 9,500 feet. The controller cleared the pilot to descend and maintain 9,000 feet. Shortly thereafter, the pilot requested clearance to climb to 11,000 feet. The controller advised the pilot that there were reports of icing between 12,000 and 16,000 feet. The pilot advised that he would be "on top of it." The pilot requested clearance to climb to 13,000 feet. Shortly thereafter, the pilot advised he was "experiencing some precipitation" and requested clearance to descend to 11,000 feet. Analysis conducted by Safety Board meteorology specialists indicates that the airplane likely encountered freezing rain or drizzle that would have resulted in moderate to severe mixed icing adhering to its airframe. As the airplane descended in a right turn, it disappeared from radar. The airplane broke up in flight and impacted heavily wooded terrain. Marijuana was found at the scene, and post-accident toxicological testing performed on specimens from the pilot was consistent with the use of marijuana within 3 hours of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain aircraft control resulting in the in-flight breakup of the airplane due to aerodynamic overload. Contributing to the accident were airframe icing and the pilot's impairment by illegal drugs.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE

Findings

1. (F) WEATHER CONDITION - ICING CONDITIONS
2. FLIGHT INTO ADVERSE WEATHER - INADVERTENT - PILOT IN COMMAND
3. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE

Findings

4. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
5. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On February 09, 2007, at 1815 eastern standard time, a Beech A36, N506BC, registered to and operated by Blue Heron Aviation Sales LLC, was destroyed when it went out of control and broke up in-flight over Fort Stewart, Georgia. Instrument meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91, and an instrument flight rules (IFR) flight plan had been filed. The private pilot and three passengers were fatally injured. The flight originated from Space Coast Regional Airport, Titusville, Florida, on February 09, at 1644, and was en route to Anderson Regional Airport, Anderson, South Carolina.

According to the personnel from the FAA Jacksonville Air Route Traffic Control Center (ARTCC), the pilot contacted controllers at 1741, and reported he was operating under visual flight rules at 9,500 feet. The pilot then advised the controller that he had an IFR flight plan on file which was to be opened over the Malcolm McKinnon Airport, Brunswick, Georgia. At 1748, the controller contacted the pilot and activated his IFR flight plan. The controller cleared the pilot "direct to the Anderson Regional Airport and advised him to descend and maintain 9,000 feet." At 1753, the pilot requested to climb to 11,000 feet. The controller acknowledged and advised the pilot that there were reports of icing between 12,000 and 16,000 feet, and if "it began to affect him, [to] let [him] know." The pilot acknowledged the weather advisory and reported that he would be "on top of it." At 1757, the pilot requested to climb to 13,000 feet. The controller cleared the pilot to climb and maintain 13,000 feet. Shortly thereafter, the pilot advised the controller that he was "experiencing some precipitation" and requested to descend to 11,000 feet. The controller cleared the pilot to descend to 11,000 feet. During the descent the airplane was lost off radar in a right descending turn. At 2214, Wright Army Airfield Control Tower personnel notified the Coast Guard of a downed airplane. The Coast Guard reported that they were getting a faint emergency signal on the Fort Stewart Military Reservation. At 2343, parts of the airplane were located in a heavily wooded area on the Fort Stewart Military Reservation, Hinesville, Georgia.

PERSONNEL INFORMATION

The pilot, age 32, held a private pilot certificate with airplane single-engine land rating, dated July 15, 2005, and an instrument rating, dated November 14, 2005. When he applied for the instrument rating, he listed his total flight time as 320 hours, 240 hours of which were as pilot-in-command. His total instrument time was listed as 52.5 hours. He held a third class airman medical certificate, dated February 4, 2004, containing no restrictions or limitations. The pilot's logbooks were not recovered for review.

AIRCRAFT INFORMATION

N506BC (s.n. E-1024), a model A-36, was manufactured by the Beech Aircraft Corporation in 1977. It was equipped with a new Continental IO-550-B-51 engine (s.n. 828947-R), manufactured on May 16, 2005, and installed on June 28, 2005, and a McCauley all-metal, 3-blade, constant speed propeller (m.n. 3A32C-76-S-MR, s.n. 770173). According to the maintenance records, the last annual/100-hour inspection was done on January 25, 2007, at a tachometer and total time of 3530.9. There was no documentation of recent IFR certification, the last of which being dated December 26, 2002. Examination of the airplane also revealed that it was not equipped with weather radar.

AIDS TO NAVIGATION

There were no reported difficulties with aids to navigation.

COMMUNICATIONS

There were no communication difficulties.

WRECKAGE AND IMPACT INFORMATION

Examination of the wreckage site revealed that the airplane was located off Fort Stewart road 36 approximately .3 miles south of 144 west. The wreckage of the airplane was scattered over an area of 1-1/2 miles. All primary flight control surfaces and airframe components were located in the wreckage area during the ground and air search.

The wing spar and rear spar attachments were examined by NTSB's Materials Laboratory. "All fracture faces showed features typical of overstress separation." There was no evidence of fatigue cracking.

MEDICAL AND PATHOLOGICAL INFORMATION

Autopsies were performed on the pilot and the three passengers by the Georgia Bureau of Investigation's Medical Examiner. In all three cases, death was attributed to "blunt force injury sustained as a result of an airplane crash."

Toxicological screening performed by the FAA's Civil Aeromedical Institute (CAMI) found 0.0397 (ug/ml, ug/g) tetrahydrocannabinol, 0.128 (ug/ml, ug/g) tetrahydrocannabinol carboxylic acid in the pilot's blood, and 2.5494 (ug/ml, ug/g) tetrahydrocannabinol carboxylic acid in his urine.

A similar toxicological screen performed on one of the passengers revealed the presence of marijuana, Hydrocodone, Norpropoxyphene, and acetaminophen. Photos taken at the accident site showed a bag of marijuana on the ground.

The pilot's most recent application for airman medical certificate indicated "No" for "Substance dependence or failed a drug test ever, or substance abuse or use of illegal substance in the

last 2 years" and for "history of any conviction(s) involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug"

Pilot Information

Certificate:	Private	Age:	32, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	February 4, 2004
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	320 hours (Total, all aircraft), 240 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N506BC
Model/Series:	A36	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	E-1024
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	January 25, 2007 Annual	Certified Max Gross Wt.:	2725 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3530.9 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	IO 520 SERIES
Registered Owner:	BLUE HERON AVIATION SALES LLC	Rated Power:	285 Horsepower
Operator:	BLUE HERON AVIATION SALES LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Night
Observation Facility, Elevation:	KLHW,45 ft msl	Distance from Accident Site:	
Observation Time:	18:10 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 3100 ft AGL	Visibility	6 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	10°C / 7°C
Precipitation and Obscuration:	In the vicinity - Freezing - Ice crystals		
Departure Point:	TITUSVILLE, FL (TIX)	Type of Flight Plan Filed:	IFR
Destination:	ANDERSON, SC (AND)	Type of Clearance:	IFR
Departure Time:	16:44 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	3 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Fatal	Latitude, Longitude:	31.886943,-81.55722(est)

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Donald Severs; FAA/FSDO; Atlanta, GA Timothy Rainey; Raytheon; Wichita, KS Jason Lukasik; Teledyne Continental Motors; Mobile, AL
Original Publish Date:	June 11, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=65284

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](#).