



National Transportation Safety Board Aviation Accident Final Report

Location:	COLUMBIA, TN	Accident Number:	ATL96FA029
Date & Time:	01/05/1996, 2155 CST	Registration:	N44DJ
Aircraft:	Cessna 210H	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The noninstrument-rated pilot filed an IFR flight plan and proceeded at night on a cross-country flight to Columbia, TN. During arrival, he contacted Memphis ARTCC and requested the VOR/DME approach to the Maury County Airport, which was a straight-in approach from the northwest. The initial approach fix (IAF) and the final approach fix (FAF) were 11.4 and 5.4 miles northwest of the airport. At about 2136 CST, ARTCC cleared the pilot to descend and maintain 3,000 feet until past the IAF. At 2141, ARTCC informed the pilot that the airplane was 500' low; he responded that he was climbing back to 3,000 feet. At 2142, ARTCC cleared the pilot for the approach. The last communication with the pilot was at 2147, when radar service was terminated. At about 2155, the airplane collided with trees and crashed approximately 10 miles southeast of the airport. The weather (at 2200) was in part: 400 feet overcast, visibility 1-3/4 miles with fog and drizzle, and wind from 030 degrees at 4 knots. Witnesses reported that they heard the airplane circling before it crashed. The wreckage was found distributed over an area of about 600 feet. Toxicology tests of the pilot's blood and liver fluid showed 11 mcg/ml and 8 mcg/ml, respectively, of Butalbital. Butalbital is a barbiturate/sedative and is not approved by the FAA for use while operating an aircraft.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to follow procedures/directives by flying in instrument meteorological conditions (IMC) without proper training/certification; and his failure (or inability) to follow proper IFR procedures and maintain proper altitude during an instrument approach, which resulted in a collision with obstacles (trees) and the ground. Factors relating to the accident were: darkness, instrument weather conditions, and pilot impairment from use of a medication that is not approved by the FAA for use while operating an aircraft.

Findings

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

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - LOW CEILING
3. (F) WEATHER CONDITION - FOG
4. (F) WEATHER CONDITION - DRIZZLE/MIST
5. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
6. LACK OF CERTIFICATION - PILOT IN COMMAND
7. (C) IFR PROCEDURE - IMPROPER - PILOT IN COMMAND
8. OBJECT - TREE(S)
9. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
10. (F) LACK OF TOTAL INSTRUMENT TIME - PILOT IN COMMAND
11. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

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

Factual Information

HISTORY OF FLIGHT

On January 5, 1996, about 2155 central standard time, a Cessna 210H, N44DJ, was substantially damaged following a collision with trees and the terrain near Columbia, Tennessee. The private pilot was fatally injured in the accident. The airplane was being operated under the provisions of Title 14 CFR Part 91 by the pilot. Instrument meteorological conditions existed at the time of the accident, and an instrument flight plan was in effect for the flight. The flight departed Cincinnati, Ohio about 1828.

According to the FAA air traffic (AT) report of the accident at 1007, the pilot of N44DJ telephoned the Dayton, Ohio (DAY) Automated Flight Service Station (AFSS) and obtained an outlook briefing for an instrument flight rules (IFR) flight from Lunken Field Airport (LUK), Cincinnati, Ohio, to Maury County Airport (MRC), Columbia/Mount Pleasant, Tennessee. At 1625 the pilot contacted the DAY AFSS and obtained a complete weather briefing. At 1833, he called again and filed an IFR flight plan.

After departing Lunken Airport, the flight proceeded uneventfully, according to the AT report until approaching the Maury County Airport. At 2134, while in contact with Memphis Air Route Traffic Control Center (ARTCC), the flight was informed that current Maury County weather was available on Automated Weather Observing System (AWOS). According to the transcript of radio communications N44DJ obtained the AWOS weather for Maury County Airport, and requested to execute the Very high frequency Omnidirectional Range with Distance Measuring Equipment (VOR-DME) approach. The flight was directed to maintain 3,000 feet until past the initial approach fix. At 2141, the controller informed N44DJ that the airplane was 500 feet low. The pilot responded that he was climbing back to 3,000 feet. At 2142, N44DJ was cleared for the approach. According to the local police report the initial report of the accident was 2204.

Local law enforcement personnel verbally reported that several local residents reported hearing the airplane circling in the area for several minutes prior to hearing the impact.

The airplane impacted trees and a field about 10 miles east of the Maury County Airport.

PERSONNEL INFORMATION

The non instrument rated pilot held a private pilot certificate with airplane single engine land rating. The certificate was issued April 14, 1994. The pilot's flight log reflected a total of approximately 390 flight hours, and 100 hours in the same make and model airplane. The logbook indicated a total of nine hours actual instrument time, and eight hours simulated instrument time. His biennial flight review was given in the Cessna 210H. He held a current third class medical with no limitations or waivers. Additional personnel information can be found in this report in the section First Pilot Information.

AIRCRAFT INFORMATION

The Cessna 210H is a six passenger, single engine, high wing, small aircraft. Additional aircraft information can be found in this report in the section Aircraft Information.

METEOROLOGICAL INFORMATION

Instrument meteorological conditions existed at the time of the accident. The light

condition was dark night. Weather conditions were reported as: Ceiling overcast at 400 feet, visibility 1.75 miles in fog and drizzle, temperature 37 degrees fahrenheit, dew point 36 degrees fahrenheit, wind 030 degrees at four knots, and altimeter 30.21 inches of mercury.

The police report indicated that that the weather after they arrived at the accident site was drizzling rain, and fog, with visibility less than 1/2 mile. A witness who lives in the area of the accident site stated it was cold and drizzly the night of the accident.

WRECKAGE INFORMATION

The accident site was located about 10 miles southeast of the airport. The approach procedure heading to the airport from the initial approach fix was 137 degrees. The wreckage was scattered in an open field along a magnetic heading of 068 degrees for about 700 feet. Trees had been broken off on the northwest side of the field with ground scars and the airplane's nose wheel northeast of the broken trees. Additional debris led to the main wreckage northeast of the broken trees. The separated propeller was found northeast of the main wreckage and the engine further northeast of the propeller (see attached wreckage diagram).

The left main landing gear, the left cabin door, and the pilot's seat were separated from the airplane. The airplane was found inverted. The firewall and the instrument panel were mangled. The fuselage was broken apart just aft of the cabin compartment. The vertical stabilizer and rudder were compressed vertically and in contact with the top in contact with the ground. The right horizontal stabilizer and elevator outboard half were torn away from the airplane. The leading edge of both wings exhibited accordion like, chordwise, compression damage.

There were chordwise scrapes on each propeller blade, and each blade was twisted, spanwise, toward a lower pitch position. The engine crankshaft fracture surface was rough, granular, and irregular in appearance and exhibited 45 degree fracture lines longitudinally, from the forward right to the aft left side of the crankshaft.

MEDICAL AND PATHOLOGICAL INFORMATION

A toxicology examination was performed by the FAA Toxicology and Accident Research Laboratory in Oklahoma City, Oklahoma. The report of the examination stated that 11.0 ug/ml, ug/g butalbital was detected in the blood, and 8.000 ug/ml, ug/g butalbital was detected in liver fluid. According to the Physician's Desk Reference, butalbital has muscle relaxant properties and is usually mixed with another drug such as caffeine, aspirin, or acetaminophen, and taken as a capsule or tablet by mouth. When mixed with another drug, butalbital is indicated for the relief of the symptom complex of tension or muscle contraction headaches. The most frequent adverse reactions are drowsiness and dizziness. Less frequent adverse reactions are lightheadedness and gastrointestinal disturbances including nausea, vomiting and flatulence. Mental confusion or depression can occur due to intolerance or overdose of butalbital. Precautions when using this drug should be followed. The use of butalbital may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks, such as driving a car or operating machinery.

Dr. Dennis Canfield, FAA Toxicology and Accident Research Laboratory stated that usually there will be approximately twice as much medication found in the liver fluid as in the blood. Because there is less found in the liver fluid, he stated the pilot most likely took the drug shortly prior to flight. He could not estimate the elapsed time since ingestion of the drug. Dr. Canfield stated the amounts of butalbital found in the pilot's system were in the therapeutic

range, and the pilot should not have been operating an airplane.

A post-mortem examination of the pilot was performed by Charles W. Harlan, Tennessee State Medical Examiner's Office.

ADDITIONAL INFORMATION

The wreckage was released on January 22, 1996 to Phillip A. Powell, Insurance Adjuster, with Carson/Brooks, Atlanta, Georgia.

Pilot Information

Certificate:	Private	Age:	43, Male
Airplane Rating(s):	Single-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:	Yes
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/20/1995
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	393 hours (Total, all aircraft), 100 hours (Total, this make and model), 162 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N44DJ
Model/Series:	210H 210H	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	21059016
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	04/05/1995, Annual	Certified Max Gross Wt.:	3000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4400 Hours	Engine Manufacturer:	Continental
ELT:	Installed	Engine Model/Series:	IO-520-A
Registered Owner:	KARL J. SCHMITTER	Rated Power:	285 hp
Operator:	KARL J. SCHMITTER	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	MRC, 677 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	2200 CST	Direction from Accident Site:	315°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	1.75 Miles
Lowest Ceiling:	Overcast / 400 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	3°C / 2°C
Precipitation and Obscuration:			
Departure Point:	CINCINNATI, OH (LUK)	Type of Flight Plan Filed:	IFR
Destination:	(MRC)	Type of Clearance:	IFR
Departure Time:	1928 CST	Type of Airspace:	Class G

Airport Information

Airport:	MAURY COUNTY (MRC)	Runway Surface Type:	
Airport Elevation:	677 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	VOR/DME
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ROFF H SASSER	Report Date:	02/28/1997
Additional Participating Persons:	ROBERT MERIDY		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).