National Transportation Safety Board
Aviation Accident Final Report

Location:	PHOENIX, AZ	**Accident Number:**	LAX95FA321
Date & Time:	09/02/1995, 1216 MST	**Registration:**	N3911C
Aircraft:	Cessna 421C	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot was cleared to land, and while on short final the airplane was observed to roll right then left into a yaw and then descend nose down into a parking lot. Witnesses reported the airplane being very low on final approach. According to the pilot's wife, his last flight was about 83 days prior to the accident. No current logbook or other maintenance-type records were recovered except for an invoice. The invoice was dated 12/20/94, and was for an annual inspection and for the replacement of six fuel inlet float valves in compliance with an airworthiness directive. Postaccident examination of the engines, propellers, and airframe components were conducted, with no discrepancies found. Symmetrical power signatures were observed on both propellers. An autopsy revealed mild focal patchy inflamation and mild cardiomegaly, and enlargement of the heart with focal patchy replacement fibrosis. Toxicology revealed Diphenhydramine, Naproxin, acetaminophen, and Salicylate in the blood and the urine at therapeutic levels. Diphenhydramine, at therapeutic levels, causes drowsiness.

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 positive aircraft control, a proper airspeed and fly a proper approach path during final approach. Contributing factors to the accident were the pilot's physiological condition, impairment as a result of using a sedating medication, and lack of recent experience.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) AIRSPEED - INADEQUATE - PILOT IN COMMAND
3. (C) PROPER GLIDEPATH - NOT MAINTAINED - PILOT IN COMMAND
4. (F) LACK OF RECENT EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
5. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND
6. (F) PHYSICAL IMPAIRMENT - PILOT IN COMMAND

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

Factual Information

HISTORY OF FLIGHT

On September 2, 1995, at 1216 hours mountain standard time, a Cessna 421C, N3911C, collided with the ground about 700 feet west of the runway 07R approach end on the extended centerline at Deer Valley Airport, Phoenix, Arizona. The ground collision followed an in-flight loss of control on final approach. The aircraft was owned and operated by the pilot and his company under 14 CFR Part 91 of the Federal Aviation Regulations. Visual meteorological conditions prevailed at the time and no flight plan was filed for the operation. The aircraft was destroyed in the collision and postcrash fire sequence. The certificated private pilot, the sole occupant, sustained fatal injuries. In addition, one person on the ground was fatally injured. The local area flight originated from the Deer Valley airport about 1100 hours on the morning of the accident.

The pilot contacted the Deer Valley Airport FAA Air Traffic Control Tower (ATCT) when he was 15 miles northwest of the airport with information "Juliet." He stated that he was inbound for landing and he would prefer the south runway. The ATCT cleared the pilot for a left base entry and requested that he report the canal and the freeway. Subsequently, the pilot reported the canal/freeway and the controller cleared the pilot to land on runway 07R. That was the last known contact with the pilot.

Controllers in the tower stated that the aircraft appeared to yaw to the left just prior to descending abruptly into the parking lot. One controller's comment from the voice tape was, "Looks like he's slipping it in."

A pilot witness on the ground stated that he observed the landing gear and flaps down. During the aircraft's base-to-final turn, he saw it suddenly bank 60 degrees to the right, then roll back to the left through level to a 60-degree left bank. At that point, the nose started to the left and the aircraft descended abruptly to the ground.

Two witnesses stated that the airplane was very low on approach over the buildings. One witness near the impact site said the aircraft's nose "pitched straight into the ground" following the wing rocking.

PILOT INFORMATION

The pilot reported a total flight time of 960 hours with 10 hours in the last 6 months at his last physical on July 19, 1994. A review of the pilot's logbook revealed that the last log entry was dated April 12, 1995.

The pilot's wife provided a tie down bill from another airport dated June 10, 1995, as a result of a request made for previous flight information. This was 83 days prior to the accident flight.

AIRCRAFT INFORMATION

There was limited logbook and maintenance record information recovered due to postcrash fire damage. An invoice was obtained from the pilot's company for maintenance services provided by an individual maintenance technician. According to the invoice, the technician and another assistant performed an annual inspection in the owner's hangar during the month of December, 1994. The invoice was for a total of 69.0 hours of labor.

The individual provided a brief typed summary of the annual inspection and the compliance

with airworthiness directive (AD) 93-05-03, which is for the replacement of all six fuel inlet float valves. He stated that he had no other documents relating to the work performed.

According to Cessna Aircraft Company service information, they use a figure of 53.0 hours for the inspection portion of a 100-hour service. Repairs or other work is in addition to the 53.0 hours. Cessna stated that the service requires special equipment and tools.

Several maintenance shop operators were contacted regarding the amount of time required to comply with AD 93-05-03, and the functional testing with the fuel inlet valve test box No. 74D-81T. They estimated the time required for the installation and testing specified in the text of the AD and the Cessna service bulletin MEB93-10R1at 40 hours.

The last refueling information documented was an invoice dated June 19, 1995, for 103.6 gallons.

WRECKAGE AND IMPACT INFORMATION

The wreckage was examined on scene the day of the accident by a Safety Board representative. A postcrash fire had consumed major portions of the airframe. The wreckage was located about 700 feet north of the runway 07R extended centerline on the west side of the airport's boundary road in a construction company's storage and parking lot. From the first identified initial point of impact (IPI) with the asphalt surface, the wreckage path was oriented on a magnetic bearing of about 360 degrees over a distance of about 110 feet. About 50 feet beyond the IPI, the airplane collided with a chain link fence. The airplane came to rest straddling the centerline of another chain link fence.

The nose of the airplane was found pointing about 140 degrees magnetic. The left outboard wing panel was severed outboard of the left engine nacelle. The fire damaged wing panel was found behind the empennage, which was also fire damaged.

Both engines were found in the area of the right wing stub. The right wing was destroyed by impact and postcrash fire. The right engine was found inverted.

A propeller blade from the right engine was located inside the fuselage nose structure. Another right engine propeller blade was found in the middle of a nearby street.

All three left propeller blades were found with two blades still attached to the hub. One of the attached blades had been burned away.

The entire aircraft structure and it's components were accounted for. One propeller blade that was not recovered was from the right propeller's No. 1 position and was determined from records to be serial number K56991.

Aircraft control continuity was not possible due to the extent of the fragmentation and fire damage.

MEDICAL AND PATHOLOGICAL INFORMATION

On September 4, 1995, the Maricopa County Medical Examiner performed an autopsy on the pilot. According to their toxicology analysis, the pilot tested negative for ethanol and acetone. According to their report, the pilot did test positive for therapeutic amounts of Diphenhydramine [0.05 mg/l], and negative for all other drugs. The autopsy examination of the heart revealed cardiomegaly, enlargement of the heart. A microscopic study revealed old fibrosis. Microscopic sectioning of the lungs showed mild focal patchy bronchopneumonia.

Samples were obtained from the pilot for toxicological analysis by the FAA Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma. The analysis was negative for ethanol. The analysis was positive in the blood and urine for the following substances: Diphenhydramine, Naproxen, and acetaminophen. Salicylate was also detected in the urine. The drug amounts were determined by CAMI to be at therapeutic levels.

TESTS AND RESEARCH

The annunciator light panel was removed from the aircraft and sent to the National Transportation Safety Board's materials laboratory for analysis of the light bulbs. No useful information was obtained.

Both of the engines were sent to Continental Motors, Mobile, Alabama, for examination. Both engines and their accessories were impact and fire damaged. The engines and the turbo charger systems were disassembled. The examination of the undamaged components revealed normal operating signatures. A report of the examination is attached.

The propellers were examined by a representative of the Safety Board and McCauley Propeller Company. Examination of the blades revealed symmetrical chordwise striations, leading edge damage, and aft bending and separation from the hub for both left and right assemblies. According to the report, neither propeller was at or near the feather position at impact.

ADDITIONAL INFORMATION

The wreckage was released to the insurance company representative on March 11,1996.

Pilot Information

Certificate:	Private	**Age:**	59, Male
Airplane Rating(s):	Multi-engine Land; 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 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	07/19/1994
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	879 hours (Total, all aircraft), 2 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N3911C
Model/Series:	421C 421C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	421C-0138
Landing Gear Type:	Retractable - Tricycle	**Seats:**	7
Date/Type of Last Inspection:	12/20/1994, Annual	**Certified Max Gross Wt.:**	7450 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	GTSIO-520-H
Registered Owner:	MAY INDUSTRIES, INC.	**Rated Power:**	375 hp
Operator:	CHARLES G. MAY	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	DVT, 1476 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	1217 MST	**Direction from Accident Site:**	250°
Lowest Cloud Condition:	Clear / 0 ft agl	**Visibility**	30 Miles
Lowest Ceiling:	None / 0 ft agl	**Visibility (RVR):**	0 ft
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	130°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	38°C / 11°C
Precipitation and Obscuration:			
Departure Point:	, AZ (DVT)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	VFR
Departure Time:	0000	**Type of Airspace:**	Class D

Airport Information

Airport:	PHOENIX DEER VALLEY MUNI (DVT)	**Runway Surface Type:**	Asphalt
Airport Elevation:	1476 ft	**Runway Surface Condition:**	Dry
Runway Used:	7R	**IFR Approach:**	None
Runway Length/Width:	8200 ft / 100 ft	**VFR Approach/Landing:**	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	N/A	**Aircraft Fire:**	On-Ground
Ground Injuries:	1 Fatal	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	GEORGE E PETTERSON	**Report Date:**	02/04/1997
Additional Participating Persons:	LARRY JONES; SCOTTSDALE, AZ STEVE WILSON; WICHITA, KS MIKE GRIMES; MOBILE, AL		
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.ntsb.gov/pubdms/.		