



National Transportation Safety Board Aviation Accident Data Summary

Location:	HICKORY, PA	Accident Number:	IAD97FA060
Date & Time:	04/01/1997, 1452 EST	Registration:	N2685S
Aircraft:	Cessna 337D	Injuries:	1 Fatal, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The pilot of the unpressurized airplane was cleared to climb to 25,000 feet by air traffic control (ATC) and he was observed going through the assigned altitude and leveling at 27,700 feet. Then the aircraft was observed at 26,000 feet, and subsequent contact was lost. The pilot did not respond when ATC queried him about exceeding his assigned altitude. The aircraft sustained an inflight breakup during an uncontrolled descent, and came to rest in a tree. According to the surviving passenger, the airplane was refueled and a portable oxygen bottle was filled prior to takeoff. She stated that they were going to take aerial photographs at four separate locations during this flight. She said that they shot three of the locations and landed at Williamsburg, Pennsylvania where the pilot filed a flight plan and setup the portable oxygen system for their use during the next flight. They departed and climbed to 10,000 feet, and the pilot told her to put her oxygen mask on, and he did the same. The last altitude she remembered the pilot calling out was 20,000 feet, and he asked her how she was doing and if she felt okay and she said yes. When asked, 'who turned on the oxygen?' she stated that she did, started to but wasn't sure how, so, the pilot reached back and turned it on. She said she knew it was on because she could feel the cool air and that there was a little valve in both lines and they went from red to green indicating the oxygen was flowing. She said that she remembered him saying that they had just crossed 20,000 feet and she began feeling dizzy, she said that her eyes would not focus, and that she felt like she was cross eyed. She said she told the pilot that she was dizzy but she thought that he was talking to the tower because he did not respond. She recalled that she felt better when she closed her eyes, when she did, that was the last thing she clearly remembered until after the crash. Analytical testing of the contents of each cylinder used to fill the pilot's oxygen bottle found that they contained compressed breathing air at about 21 percent oxygen instead of aviation oxygen. Postmortem examination revealed the pilot's death was a result of hypoxic hypoxia due to insufficient oxygen reaching the blood.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Servicing of the pilots portable oxygen system with compressed air, which resulted in pilot incapacitation due to Hypoxia.

Findings

Occurrence #1: ALTITUDE DEVIATION, UNCONTROLLED
Phase of Operation: CLIMB - TO CRUISE

Findings

1. (C) OXYGEN SYSTEM - IMPROPER - OTHER MAINTENANCE PERSONNEL
2. (C) INCAPACITATION (ANOXIA/HYPOXIA) - PILOT IN COMMAND

Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: DESCENT - UNCONTROLLED

Findings

- 3. FUSELAGE - OVERLOAD
- 4. AIRCRAFT CONTROL - NOT PERFORMED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - UNCONTROLLED

Findings

- 5. (F) OBJECT - TREE(S)

Pilot Information

Certificate:	Private	Age:	52
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	3100 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2685S
Model/Series:	337D 337D	Engines:	2 Reciprocating
Operator:	FLIGHT SERVICES, INC.	Engine Manufacturer:	Continental
Operating Certificate(s) Held:	None	Engine Model/Series:	IO-360
Flight Conducted Under:	Part 91: General Aviation - Business		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PIT, 1204 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	13 knots / 23 knots, 350°
Temperature:	11°C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	WAYNESBURG, PA (WAY)	Destination:	NORTH LIMA, OH (4G4)

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	BUTCH WILSON	Adopted Date:	01/10/2000
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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