



National Transportation Safety Board Aviation Accident Data Summary

Location:	Harrison, MI	Accident Number:	CEN10FA063
Date & Time:	12/04/2009, 1845 EST	Registration:	N85EM
Aircraft:	PIPER PA-31T2	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Executive/Corporate		

Analysis

Shortly after takeoff in the pressurized twin-engine airplane, the pilot was cleared to climb and maintain 16,000 feet. The pilot reported passing through instrument conditions with heavy snow and that he cleared the tops of the clouds at 7,000 feet. The pilot was then cleared to climb and maintain flight level (FL) 230. Radar data showed the airplane's altitude and course varied throughout the flight after having reached FL 230. Several times during the flight the air traffic controller questioned the pilot regarding his altitude and/or course. Each time the pilot responded that he was at the correct altitude and/or course. The radar data showed that after each of these conversations, the airplane would return to the assigned altitude and/or course. The controller then informed the pilot that, because radar showed the airplane's altitude fluctuating between FL 224 and FL 237, he was going to have to descend out of positive controller airspace. The pilot acknowledged this transmission. The controller instructed the pilot to descend to 17,000 feet. The last transmission from the pilot was when he acknowledged the descent. Radar data showed that one minute later the airplane was at FL 234. During the last minute and 12 seconds of radar data, the airplane reversed its course and descended from FL 233 to FL 214, at which time radar data was lost. Witnesses reported hearing loud engine sounds and seeing the airplane in a spiraling descent until ground impact. Postaccident inspection of the engines did not identify any anomalies that would have precluded normal operation. Most of the fuselage was consumed by fire; however, flight control continuity was established. Given the pilot's experience and the flight's altitude and course variations the investigation considered that the pilot may have suffered from hypoxia; however, due to the postimpact fire the functionality of the airplane's pressurization system could not be observed and no conclusive determination could be made that the pilot was impaired.

Flight Events

Enroute-descent - Loss of control in flight
Uncontrolled descent - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
A loss of aircraft control for undetermined reasons.

Findings

Not determined-Not determined-(general)-(general)-Unknown/Not determined - C

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	58
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane
Flight Time:	13000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	PIPER	Registration:	N85EM
Model/Series:	PA-31T2	Engines:	2 Turbo Prop
Operator:	Tiffin Aire	Engine Manufacturer:	P&W CANADA
Air Carrier Operating Certificate:	On-demand Air Taxi (135)	Engine Model/Series:	PT6A-60A
Flight Conducted Under:	Part 91: General Aviation - Executive/Corporate		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	MOP, 755 ft msl	Weather Information Source:	Unknown
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Overcast / 4300 ft agl
Condition of Light:	Night	Wind Speed/Gusts, Direction:	11 knots/ 16 knots, 220°
Temperature:	-2° C / -5° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Charlevoix, MI (CVX)	Destination:	Tiffin, OH (16G)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground

Administrative Information

Investigator In Charge (IIC):	Pamela S Sullivan	Adopted Date:	03/16/2011
Note:	The NTSB traveled to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=75131		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.