



National Transportation Safety Board Aviation Accident Final Report

Location:	Monroe, Michigan	Accident Number:	CEN11FA253
Date & Time:	March 29, 2011, 16:04 Local	Registration:	N619VH
Aircraft:	Piper PA46-350P	Aircraft Damage:	Substantial
Defining Event:	Part(s) separation from AC	Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation		

Analysis

This report was modified on 6/10/13. Please see the docket for this accident to view the original report.

While flying an approach, the pilot attempted to contact one of his flight instructors. A witness reported and radar data showed the airplane approaching the runway at a higher-than-normal speed. As the airplane leveled low over the runway, the propeller began striking the runway surface. The damage from repetitive propeller strikes resulted in a loss of the thrust and airspeed necessary for flight. The airplane impacted the ground and subsequently caught fire. The postaccident examination of the wreckage confirmed that the airplane was configured with the landing gear and flaps retracted. No mechanical anomalies were observed that would have precluded normal operation of the airplane. Weight and balance estimates of the airplane indicated that the pilot was operating the airplane outside of its certified weight and center of gravity limits. Forensic toxicology performed on the pilot showed the presence of Hydrocodone and Dihydrocodeine, indicative of the pilot using disqualifying sedating cough or pain medications. These medications can impair performance in high workload environments. The level of medication found in the pilot's blood at the time of the accident could not be determined. Additionally, Nortriptyline was detected in the pilot's tissues. While the medications could have had degrading effects on the pilot's performance, the investigation was not able to determine what role they may have played in the accident sequence.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's demonstration of poor judgment by attempting a high-speed pass several feet above the runway and his subsequent failure to maintain clearance from the runway.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Altitude - Incorrect use/operation
Aircraft	Airspeed - Incorrect use/operation
Aircraft	Propeller blade section - Damaged/degraded
Aircraft	Climb capability - Attain/maintain not possible
Aircraft	CG/weight distribution - Incorrect use/operation
Personnel issues	(general) - Pilot

Factual Information

HISTORY OF FLIGHT

On March 29, 2011, about 1604 eastern daylight time, a Piper PA46-350P, N619VH, impacted a field southeast of the departure end of runway 21 at Custer Airport (TTF), Monroe, Michigan. The certificated private pilot and two passengers were fatally injured. The airplane sustained substantial damage to the fuselage. The airplane was registered to Triple F Aviation LLC and was operated by the pilot under the provisions of 14 CFR Part 91. Visual meteorological conditions prevailed and a flight plan had been filed for the flight that departed from Bedford County Airport, Bedford, Pennsylvania, about 1426, and was en route to TTF.

A witness reported that the airplane was unusually low and still flying at a high rate of speed with its landing gear retracted when it flew over Stewart Road. The airplane continued at a high rate of speed as it crossed over the trees adjacent to runway 21.

Radar data indicated that the airplane's ground speed was 132 knots, at an altitude of 800 feet, and a heading of 207 degrees when it was about 0.5 miles from runway 21 (4,997 feet by 100 feet, grooved asphalt).

A second witness said that the pilot attempted to contact a flight instructor who had previously flown with the pilot while the airplane was approaching TTF. The flight instructor was employed at a TTF fixed base operator and was also a Federal Aviation Administration (FAA) Safety Team (FAAST) Representative.

Another witness reported that he saw the airplane in a turn with "little speed." The airplane then "just dropped." The left wing and nose hit the ground simultaneously.

PERSONNEL INFORMATION

The pilot, age 58, held a private pilot with an instrument rating. He was issued a third class airman medical certificate on December 2, 2009, with the following limitation: "must have available glasses for near vision." At the time of his medical certificate application, he reported a total flight time of 1,600 hours. His last flight review was April 6, 2010.

The pilot had no FAA record of previous incidents, accidents, or enforcement actions.

AIRCRAFT INFORMATION

The 2006 Piper PA46-350P airplane, serial number 4636402, was powered by a Lycoming TIO-540-AE2A engine, serial number L-12591-61A. The airplane was equipped with a Hartzell HC-113YR-1RF, serial number HK1264B, 3-blade, composite propeller.

The airplane had the following maximum weights and center of gravity (CG) range:

Ramp weight: 4,358 lbs

Takeoff weight: 4,340 lbs
Landing weight: 4,123 lbs
CG at maximum ramp weight: 144.14 - 147.1 inches

According to FAA airman records, the pilot reported a weight of 175 lbs. Department of Motor Vehicle records list the right front passenger weight as 183 lbs and the rear-seat passenger as 207 lbs.

The Piper PA46-350P has a usable main fuel tank capacity of 120 gallons. Prior to departure from TTF, the airplane main fuel tanks were topped off and 5 gallons of fuel was added to each wing tip tank.

According to Piper Aircraft estimates of airplane weight and balance, the airplane total weight was 4,474 lbs and with a CG of 142.24 inches when it originated from TTF. With a fuel consumption of 31 gallons, the airplane total weight was 4,288 lbs and a CG of 141.89 inches. These CGs were based upon the rear-seat passenger being seated in the aft most seat.

According to a weight and balance form for the airplane dated January 5, 2007, the airplane had a useful load of 1,168.96 lbs.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was conducted by the Office of the Wayne County Medical Examiner, Detroit, Michigan, on March 30, 2011. The cause of death was cited as: "...multiple injuries sustained as a pilot of plane that crashed."

The FAA Final Forensic Toxicology Fatal Accident Report reported the following for substances tested:

Volatiles

- No ethanol detected in urine

Atenolol detected in Liver

- Atenolol detected in Kidney
- 0.082 (ug/mL, ug/g) Dihydrocodeine detected in Urine
- 0.216 (ug/ml, ug/g) Hydrocodone detected in Urine
- Nortriptyline detected in Liver
- Nortriptyline detected in Kidney

WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was located at global positioning system coordinates and elevation: 41 degrees 55.663 minutes North, 083 degrees 26.041 minutes West or approximately 1,800 feet southeast of the departure end of runway 21. The tail to nose wreckage heading was about 220 degrees. The wreckage exhibited impact and fire damage to the fuselage.

Examination of the main wreckage revealed that the landing gear was in the retracted position

and the flaps were in the retracted position.

The propeller was attached to the hub but was separated at the propeller blade roots. The separation features were consistent with a propeller strike.

Examination of runway 21 noted 37 marks within the runway surface consistent with propeller slash marks that began about 2,000 feet down runway 21. Material consistent with the airplane propeller was located in the area of the slash marks.

Sixteen slash marks beginning about 2,000 feet down the runway were separated beginning with 21 inches and with a range of about 21 - 29.5 inches. The remainder of the slash mark spacing ranged from about 29.5 to 40 inches.

Examination of the wreckage revealed no mechanical anomalies that would have precluded normal operation.

History of Flight

Maneuvering-low-alt flying	Collision with terr/obj (non-CFIT)
Maneuvering-low-alt flying	Part(s) separation from AC (Defining event)
Maneuvering-low-alt flying	Attempted remediation/recovery
Initial climb	Loss of control in flight
Uncontrolled descent	Collision with terr/obj (non-CFIT)
Post-impact	Fire/smoke (post-impact)

Pilot Information

Certificate:	Private	Age:	58, 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 With waivers/limitations	Last FAA Medical Exam:	December 2, 2009
Occupational Pilot:	No	Last Flight Review or Equivalent:	April 6, 2010
Flight Time:	1600 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N619VH
Model/Series:	PA46-350P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	4636402
Landing Gear Type:	Tricycle	Seats:	6
Date/Type of Last Inspection:	February 7, 2011 Annual	Certified Max Gross Wt.:	4358 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	851.2 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	TIO-540-AE2A
Registered Owner:		Rated Power:	350 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	TTF,616 ft msl	Distance from Accident Site:	
Observation Time:	15:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	6°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bedford, PA (HMZ)	Type of Flight Plan Filed:	IFR
Destination:	Monroe, MI (TTF)	Type of Clearance:	IFR
Departure Time:	14:26 Local	Type of Airspace:	

Airport Information

Airport:	Custer Airport TTF	Runway Surface Type:	Asphalt
Airport Elevation:	616 ft msl	Runway Surface Condition:	Dry
Runway Used:	21	IFR Approach:	Visual
Runway Length/Width:	4997 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	2 Fatal	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	41.939998, -83.434722(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Erick Nodland; Federal Aviation Administration; Belleville, MI John Butler; Lycoming; Williamsport, PA Michael McClure; Piper Aircraft, Inc.; Vero Beach, FL
Original Publish Date:	November 26, 2012
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=78711

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).