



National Transportation Safety Board Aviation Accident Final Report

Location:	WILLIAMSTOWN, NJ	Accident Number:	NYC96LA118
Date & Time:	06/01/1996, 1630 EDT	Registration:	N8186G
Aircraft:	Piper PA-32R	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that while in cruise flight at 2500 feet ' . . . just past the [Cedar Lake] VOR . . . there was a loud 'pop' from the engine compartment and an immediate loss of power.' During a subsequent forced landing, the aircraft struck a large fence post causing the right wing to separate. The aircraft rotated 90 degrees and the landing gear collapsed. Examination of the aircraft revealed the magneto had disconnected from the accessory gear box. An inspection disclosed the upper magneto hold down stud was intact and the associated hardware consisting of the nut, washer, lock washer, and hold-down clip were installed; however, the same pieces of hardware for the lower hold down stud were missing. Also noted was that a significant section of the magneto housing hold-down flange was fractured.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: inadequate maintenance, which resulted in a failure of the magneto housing hold-down flange, a disconnect of the magneto from the engine, and loss of engine power. The obstruction (fence post) in the emergency landing area was a related factor.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) MAINTENANCE - INADEQUATE - PILOT IN COMMAND
2. (C) IGNITION SYSTEM,MAGNETO - FAILURE
3. (C) IGNITION SYSTEM,MAGNETO - DISCONNECTED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings

4. (F) OBJECT - FENCE POST

Factual Information

On June 1, 1996, at about 1630 eastern daylight time, a Piper PA-32R, N8186G, was substantially damaged during a forced landing near Williamstown, New Jersey. The private pilot and two passengers were not injured. The personal flight originated from Kinston, North Carolina (ISO), at 1400 with Trenton, New Jersey as the intended destination. Visual meteorological conditions prevailed at the time of the accident, no flight plan was filed.

The pilot reported that while in cruise flight at 2500 feet "...just past the [Cedar Lake] VOR ...there was a loud 'pop' from the engine compartment and an immediate loss of power." The pilot said he trimmed the airplane for best glide speed, located the nearest airport with his Loran, and turned the airplane to the heading provided by the Loran. The front seat passenger announced over the Trenton tower frequency the engine power loss, aircraft location, and aircraft status throughout the forced landing sequence.

The pilot explained that he chose a "...large pair of adjoining fields..." for landing when he could not visually confirm the airport cited by the Loran, and after he determined that all other airport options were outside of the airplane's gliding distance. He said, "We touched down near the end of the first field, which was separated from the second field by a barbed wire fence. Unfortunately, one of the posts was, as I learned later, a large railroad tie. The right wing struck the post at the location of the inner fuel tank, causing separation of the tank and other significant damage to the right wing. The impact turned the plane about 90 degrees, the landing gear collapsed, and the plane skidded on its belly to a stop in the middle of the second field."

Examination of the aircraft revealed the magneto had disconnected from the accessory gear box. The inspection disclosed the magneto hold down stud was intact and the associated hardware consisting of the nut, washer, lock washer, and hold-down clip were installed; however, the same pieces of hardware for the lower hold down stud were missing. Also noted was a significant section of magneto housing hold-down flange was fractured.

Pilot Information

Certificate:	Private	Age:	53, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	05/08/1995
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	2106 hours (Total, all aircraft), 1109 hours (Total, this make and model), 1903 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8186G
Model/Series:	PA-32R PA-32R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	32R8029079
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	07/01/1995, Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	96 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2955 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated	Engine Model/Series:	TIO-540-S1AD
Registered Owner:	COURTER FILMS & ASSOCIATES	Rated Power:	300 hp
Operator:	PHILIP R. COURTER	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MIV, 86 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	1600 EDT	Direction from Accident Site:	217°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	20 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	22° C / 6° C
Precipitation and Obscuration:			
Departure Point:	KINSTON, NC (ISO)	Type of Flight Plan Filed:	None
Destination:	TRENTON, NJ (TTN)	Type of Clearance:	None
Departure Time:	1430 EDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): DENNIS L JONES Report Date: 05/30/1997

Additional Participating Persons:

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/>.

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](#).