



National Transportation Safety Board Aviation Accident Final Report

Location:	PROSPERITY, PA	Accident Number:	NYC01LA029
Date & Time:	11/02/2000, 1200 EST	Registration:	N35241
Aircraft:	Cessna 177B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

While performing maneuvers, at an altitude of about 2,500 feet above the ground, the pilot heard a loud "pop," and the engine lost all power. The pilot made a forced landing to a field, where the airplane struck a fence, before coming to rest in briar bushes. When the airplane's dual magneto system was examined, both sets of points remained closed, regardless of the camshaft position.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the dual magneto ignition system points to open.

Findings

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

Findings

1. (C) IGNITION SYSTEM,IGNITION POINTS - OTHER

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

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

Findings

2. OBJECT - TREE(S)

Factual Information

On November 2, 2000, about 1200 Eastern Standard Time, a Cessna 177B, N35241, was substantially damaged after a forced landing near Prosperity, Pennsylvania. The certificated private pilot and pilot-rated passenger received minor injuries. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight conducted under 14 CFR Part 91.

According to the pilot, he and the passenger were practicing maneuvers, for the commercial pilot practical test. While at an altitude of about 2,500 feet above the ground, the pilot heard a loud "pop," and the engine lost all power. The pilot made a force landing to a field. After touching down in the field, the airplane struck a fence and came to rest in briar bushes.

The pilot did not report any prior mechanical difficulties with the airplane's engine.

The airplane's magneto system, a Teledyne Continental Motors D-3000 Magneto Ignition system, was forwarded to Teledyne Mattituck Services Inc., Mattituck, New York, on January 10, 2001, and examined in the presence of a Federal Aviation Administration inspector. The inspector observed that both sets of points remained closed, regardless of the cam position, when the magneto system was tested. The inspector also stated that all securing hardware torque seals were intact and there was no evidence of point adjustment shifting.

A Safety Board investigator examined the magneto system on February 7, 2001. As the impulse coupling was turned, the lobes of the cam would not push the cam follower far enough to open the points.

Pilot Information

Certificate:	Private	Age:	39, 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:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	09/11/2000
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	844 hours (Total, all aircraft), 42 hours (Total, this make and model), 763 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N35241
Model/Series:	177B 177B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17702285
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	05/10/2000, Annual	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	96 Hours	Engines:	1 Reciprocating
Airframe Total Time:	5886 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A1F6D
Registered Owner:	ABC FLYING CLUB INC	Rated Power:	180 hp
Operator:	ABC FLYING CLUB INC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	AFJ, 1184 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	1155 EST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	61°C / 34°C
Precipitation and Obscuration:			
Departure Point:	WEST MIFFLIN, PA (AGC)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1030 EST	Type of Airspace:	Class G

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): STEPHEN M DEMKO **Report Date:** 11/14/2001

Additional Participating Persons: RON HORAK; ALLEGHENY, PA

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/>.

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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](#).