



National Transportation Safety Board Aviation Accident Data Summary

Location:	Miami, FL	Accident Number:	ERA13LA187
Date & Time:	04/04/2013, 0840 EDT	Registration:	N6141Q
Aircraft:	CESSNA 152	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

Near the conclusion of a local training flight, the airplane's engine experienced a partial loss of power, and the flight instructor performed a forced landing to a road. The airplane departed the road during the landing, and the right wing was substantially damaged. Postaccident examination of the engine found that the No. 3 cylinder exhaust valve had fractured and separated from the valve stem. Review of maintenance records showed that the valve may have been installed during a repair to the No. 3 cylinder that occurred about 28 years before the accident flight; however, due to the incomplete nature of the records provided, a definitive determination of the engine's complete service history could not be made. Recent engine log entries showed that the engine had accumulated nearly 2,500 flight hours since the most recent overhaul. The engine-manufacturer-recommended time between overhaul is every 2,400 flight hours or 12 calendar years.

Flight Events

Maneuvering - Loss of engine power (partial)
Emergency descent - Off-field or emergency landing
Landing-landing roll - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A partial loss of engine power due to the failure of the No. 3 exhaust valve. Contributing to the accident was the airplane operator's failure to follow the engine manufacturer's recommended engine overhaul intervals.

Findings

Aircraft-Aircraft power plant-Engine (reciprocating)-Recip eng cyl section-Failure - C
Personnel issues-Task performance-Maintenance-Scheduled/routine maintenance-Maintenance personnel - F

Flight Instructor Information

Certificate:	Flight Instructor; Commercial	Age:	25
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):		Instructor Rating(s):	Airplane Single-engine; Instrument Airplane
Flight Time:	903 hours (Total, all aircraft), 901 hours (Total, this make and model), 828 hours (Pilot In Command, all aircraft), 368 hours (Last 90 days, all aircraft), 124 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Student Pilot Information

Certificate:	Student	Age:	23
Airplane Rating(s):	None	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	64 hours (Total, all aircraft), 64 hours (Total, this make and model), 49 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N6141Q
Model/Series:	152	Engines:	1 Reciprocating
Operator:	C&G Aircraft Maintenance Inc.	Engine Manufacturer:	Lycoming
Air Carrier Operating Certificate:	None	Engine Model/Series:	O-235
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	TMB, 10 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	7 knots, 160°
Temperature:	25°C / 21°C	Visibility:	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Miami, FL (TMB)	Destination:	Miami, FL (TMB)

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Dennis Diaz	Adopted Date:	08/07/2013
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86585		

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