



National Transportation Safety Board Aviation Accident Data Summary

Location:	Vega Baja, PR	Accident Number:	ERA11LA230
Date & Time:	04/01/2011, 1635 AST	Registration:	N98FR
Aircraft:	CESSNA 172P	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

During cruise flight, about 1,000 feet above ground level, the engine lost power and began to vibrate. The pilot was unable to maintain altitude, so he performed a forced landing to a nearby abandoned military airfield. After touchdown, the airplane departed the end of the runway and collided with trees and bushes resulting in substantial damage to the airframe. A postaccident examination of the engine revealed that the No. 2 cylinder exhaust valve failed, and the valve parts exited the engine through the exhaust system. The operator reported that the exhaust valve had accumulated about 1,120 hours since installation.

Flight Events

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

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The failure of the No. 2 cylinder exhaust valve resulting in a loss of engine power.

Findings

Aircraft-Aircraft power plant-Engine (reciprocating)-Recip eng cyl section-Failure - C

Pilot Information

Certificate:	Private	Age:	20
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	226 hours (Total, all aircraft), 30 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N98FR
Model/Series:	172P	Engines:	1 Reciprocating
Operator:	Isla Grande Flying School	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:	None	Engine Model/Series:	O-320-D2J
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	TJSJ	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Dawn	Wind Speed/Gusts, Direction:	10 knots, 150°
Temperature:	31° C / 19° C	Visibility	9 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Borinquen, PR (BQN)	Destination:	San Juan, PR (SIG)

Airport Information

Airport:	Camp Tortuguero (Abandoned)	Runway Surface Type:	Asphalt
Runway Used:		Runway Surface Condition:	Rough
Runway Length/Width:	3500 ft / 75 ft		

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

Administrative Information

Investigator In Charge (IIC):	Ralph E Hicks	Adopted Date:	08/11/2011
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78797		

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