



National Transportation Safety Board Aviation Accident Data Summary

Location:	COLUMBIA, NC	Accident Number:	ATL99LA027
Date & Time:	12/03/1998, 1430 EST	Registration:	N18022
Aircraft:	Cessna 150	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

Approximately one hour into the flight, the flight instructor reported that the engine developed a rough condition and a reduction in power. Since normal flight could not be maintained, the flight instructor selected a field that he believed would be suitable for a forced landing. During the landing roll, the flight instructor attempted to avoid a collision with a drainage ditch and trees. After the airplane went through several gyrations, it rested 180 degrees from the initial landing direction. Examination of the engine disclosed that the #2 exhaust valve had failed, and pieces of the valve head were lodged in the cylinder and the exhaust system. The examination of the valve revealed that the valve head separated at the valve stem attach point. The valve stem remained in a normally installed position, and functioned normally when the engine drive train was rotated. A review of the engine maintenance logs disclosed that this engine had a previous exhaust valve failure 931 hours ago. The exhaust valve Part Number was SA-646612.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the #2 exhaust valve that resulted in the total loss of engine power. A factor is the lack of suitable emergency landing terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY, VALVE, EXHAUST - FAILURE, TOTAL

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

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

2. (F) TERRAIN CONDITION - NONE SUITABLE

Pilot Information

Certificate:	Commercial	Age:	31
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Single-engine
Flight Time:	490 hours (Total, all aircraft), 244 hours (Total, this make and model), 467 hours (Pilot In Command, all aircraft), 75 hours (Last 90 days, all aircraft), 39 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N18022
Model/Series:	150 150	Engines:	1 Reciprocating
Operator:	JEFFERY W. WILLIAMS	Engine Manufacturer:	Continental
Operating Certificate(s) Held:	None	Engine Model/Series:	O-200A
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	EDE, 20 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	7 knots / , 230°
Temperature:	21 °C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	MANTEO, NC (MQI)	Destination:	

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
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC):	PHILLIP POWELL	Adopted Date:	02/16/2001
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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