



National Transportation Safety Board Aviation Accident Factual Report

Location:	COLUMBIA, NC	Accident Number:	ATL99LA027
Date & Time:	12/03/1998, 1430 EST	Registration:	N18022
Aircraft:	Cessna 150	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Personal

On December 3, 1998, at 1430 eastern standard time, a Cessna 150, N18022, collided with the ground during an emergency landing, near Columbia, North Carolina. The instructional flight was operated by the flight instructor under the provisions of Title 14 CFR Part 91 with no flight plan filed. A review of weather data from the nearest reporting facility disclosed that visual weather conditions prevailed at the time of the accident. According to the operator, the airframe sustained substantial structural damage. The certified flight instructor and the student pilot, were not injured. The local flight departed Manteo, North Carolina, at 1330.

According to the flight instructor, before the initial takeoff, he and the student pilot completed a preflight inspection and a normal engine run-up. The flight instructor reported that after the initial takeoff they flew to Elizabeth City, North Carolina, where they made a touch and go landing. The flight instructor and student pilot made another touch and go landing at Edenton, North Carolina. 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 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 (see attached FAA inspector's report).

Pilot Information

Certificate:	Commercial	Age:	31, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	12/30/1997
Occupational Pilot:		Last Flight Review or Equivalent:	
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	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	15073738
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	11/10/1998, 100 Hour	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	54 Hours	Engines:	1 Reciprocating
Airframe Total Time:	5368 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-200A
Registered Owner:	JERRY D. MORRIS	Rated Power:	100 hp
Operator:	JEFFERY W. WILLIAMS	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	EDE, 20 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	1455 EST	Direction from Accident Site:	300°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	21° C / 10° C
Precipitation and Obscuration:			
Departure Point:	MANTEO, NC (MQI)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1415 EST	Type of Airspace:	Class G

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
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	PHILLIP POWELL
Additional Participating Persons:	JEFFERY RIDDELL; WINSTON SALEM, NC
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/ .