



National Transportation Safety Board Aviation Accident Data Summary

Location:	WILLIAMSBURG, VA	Accident Number:	NYC94LA045
Date & Time:	01/02/1994, 2223 EST	Registration:	N776P
Aircraft:	CESSNA 206A	Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

DURING PREFLIGHT THE PILOT CONFIRMED 11 QUARTS OF OIL IN THE ENGINE. THE PILOT DEPARTED ON A NIGHT CROSS COUNTRY FLIGHT AND CLIMBED TO A CRUISING ALTITUDE OF 4500 FEET. FIFTEEN MINUTES AFTER TAKE OFF THE ENGINE LOST POWER. AN EXPLOSION OCCURRED IN THE ENGINE COMPARTMENT AFTER THE PILOT INITIATED A TURN TO RETURN TO THE DEPARTURE AIRPORT. THE PILOT WAS APPROACHING WATER AND ELECTED NOT TO SHUT THE ENGINE DOWN. A SECOND EXPLOSION OCCURRED FOLLOWED BY A LOSS OF OIL PRESSURE. AFTER A THIRD EXPLOSION FOLLOWED BY FIRE ERUPTING FROM THE ENGINE COMPARTMENT, THE PILOT SECURED THE ENGINE AND SHUT THE FUEL OFF. DURING THE FORCED LANDING THE LEFT WING OF THE AIRPLANE STRUCK A TREE SHORT OF THE RUNWAY, AND THE AIRPLANE CAME TO REST IN A FIELD. EXAMINATION OF THE ENGINE REVEALED THAT AN EXHAUST VALVE HAD BROKEN FREE AND CREATED A HOLE IN THE PISTON. THE ENGINE WAS FOUND ABSENT OF OIL. TWO CONNECTING RODS FAILED AT THE CRANKSHAFT JOURNALS FROM A LACK OF LUBRICATION.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: an exhaust valve failure that created a hole in the piston, which allowed the complete loss of engine oil, resulting in the subsequent forced landing.

Findings

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

Findings

1. LIGHT CONDITION - DARK NIGHT
2. (C) ENGINE ASSEMBLY, VALVE, EXHAUST - FAILURE, TOTAL
3. (C) FLUID, OIL - LOSS, TOTAL

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

4. OBJECT - TREE(S)

Pilot Information

Certificate:	Commercial	Age:	50
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	11067 hours (Total, all aircraft), 365 hours (Total, this make and model), 9050 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 70 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N776P
Model/Series:	206A 206A	Engines:	1 Reciprocating
Operator:	MARY C. BURCH	Engine Manufacturer:	CONTINENTAL
Operating Certificate(s) Held:		Engine Model/Series:	TSIO-520-C
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	RIC, 168 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Overcast / 6500 ft agl	Wind Speed/Gusts, Direction:	4 knots / , 360°
Temperature:	6° C	Visibility	7 Miles
Precipitation and Obscuration:			
Departure Point:		Destination:	ENTERPRISE, AL (END)

Airport Information

Airport:	WILLIAMSBURG-JAMESTOWN (JGG)	Runway Surface Type:	
Runway Used:	0	Runway Surface Condition:	Soft
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): ROBERT L PEARCE

Adopted Date: 11/18/1994

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/>.

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.