



National Transportation Safety Board Aviation Accident Data Summary

Location:	Greenwood, MS	Accident Number:	ERA11LA224
Date & Time:	04/01/2011, 1820 CDT	Registration:	N146DG
Aircraft:	PIPER PA 46-350P	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane was climbing through 13,000 feet when the pilot heard a loud "pop" and observed a large reduction in manifold pressure. He declared an emergency to an air traffic controller and initiated a slow descent to the nearest airport recommended by the controller. The pilot asked the controller if there was a mechanic at that airport and the controller stated that there was not but that a mechanic was available at another airport. The pilot elected to go to the other airport, which was farther away. The pilot acquired the airport visually but was initially a little high and planned to enter the traffic pattern on a downwind leg for the opposite runway; the pilot lowered the landing gear to assist in losing altitude. However, the airplane was then low and the airspeed was decreasing. The pilot subsequently decided to abandon the downwind approach and land straight-in to the runway. The oil pressure gauge indicated zero and the oil warning light illuminated. The pilot continued to run the engine until he thought he could reach the runway, and then he shut down the engine. He subsequently raised the landing gear as the airplane became low, but the airspeed also decreased. He realized that he was not going to reach the runway and lined up with a grassy area short of the runway to avoid colliding with the instrument landing system. He extended the landing gear and flaps and the airplane touched down and collided with a ditch.

A postaccident examination of the engine assembly revealed that the right turbocharger would not rotate when actuated by hand. The turbocharger was removed and oil was noted in the compressor outlet tubing. Several of the blades were broken and some were bent near the tip in the direction opposite of rotation. Metallurgical examination of the right turbocharger revealed that the turbine wheel assembly failed due to a fatigue fracture of one of the turbine wheel blades, which led to an imbalance of the turbine wheel.

Flight Events

Initial climb - Loss of engine power (partial)

Approach - Engine shutdown

Landing - Landing area undershoot

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot did not obtain the proper touchdown point as a result of his decision to shut down the engine and to deploy the landing gear and flaps before the landing was assured. Contributing to the accident was his decision to overfly a closer suitable airport and the fatigue fracture of a turbine blade in the right turbocharger, which led to an imbalance of the turbine wheel and the subsequent failure of the turbocharger.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Descent/approach/glide

path-Not attained/maintained - C

Aircraft-Aircraft power plant-Turbocharging (recip only)-Turbocharger-Failure - F

Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - C

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	56
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Single-engine; Instrument Airplane
Flight Time:	8220 hours (Total, all aircraft), 2902 hours (Total, this make and model), 6461 hours (Pilot In Command, all aircraft), 112 hours (Last 90 days, all aircraft), 41 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	PIPER	Registration:	N146DG
Model/Series:	PA 46-350P	Engines:	1 Reciprocating
Operator:	Allan R. Garner	Engine Manufacturer:	LYCOMING
Air Carrier Operating Certificate:	None	Engine Model/Series:	TIO-540 SER
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	GWO, 162 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:	4 knots, 50°
Temperature:	18°C / 9°C	Visibility:	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Memphis, TN (MEM)	Destination:	New Orleans, LA (NEW)

Airport Information

Airport:	Greenwood-Leflore Airport (GWO)	Runway Surface Type:	
Runway Used:	18	Runway Surface Condition:	Dry
Runway Length/Width:	6503 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Carrol A Smith

Adopted Date: 02/23/2012

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=78743>

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