



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Dayton, OH	<b>Accident Number:</b>	CEN10FA180
<b>Date &amp; Time:</b>	04/01/2010, 1253 EDT	<b>Registration:</b>	N4BA
<b>Aircraft:</b>	BEECH B36TC	<b>Injuries:</b>	2 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

Approximately 1 minute after takeoff, as the airplane was about 1 mile southwest of the airport, the pilot reported an engine failure to air traffic controllers and initiated a return to the airport. One witness, located about 1 mile west of the airport, reported that the sound of the engine changed abruptly; noting that the engine seemed to lose power completely. Another witness, located near the airport, observed the airplane approach from the west and turn to align with the downwind runway. During the turn, the left wingtip struck the ground and the airplane impacted short of the runway. A postimpact fire ensued. Although the pilot initiated a return to the airport, an interstate highway and an open grass area short of the runway were both potentially available for an emergency landing. A postaccident examination of the engine revealed that the No. 1 (aft) main crankshaft bearing failed due to unknown circumstances. The progressive failure of the bearing likely precipitated secondary failures of the crankcase through-bolt and the fuel pump coupling, which resulted in a complete loss of engine power.

## Flight Events

Initial climb - Loss of engine power (total)  
Emergency descent - Off-field or emergency landing  
Landing - Landing area undershoot  
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 complete loss of engine power due to failure of the No. 1 main bearing, and the secondary failure of a crankcase through-bolt and the fuel pump drive coupling. Contributing to the accident was the pilot's decision to attempt a return to the airport for a downwind forced landing, despite having an interstate highway and an open grass area short of the runway as available emergency landing sites.

## Findings

Aircraft-Aircraft power plant-Engine (reciprocating)-Recip eng rear section-Failure - C  
Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - F

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	50
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	182 hours (Total, all aircraft), 93 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	BEECH	<b>Registration:</b>	N4BA
<b>Model/Series:</b>	B36TC	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	POELKING AIR LLC	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>Air Carrier Operating Certificate:</b>	None	<b>Engine Model/Series:</b>	TSIO-520 SER
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	MGY, 957 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	None
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	9 knots/ 22 knots, 210°
<b>Temperature:</b>	22° C / 9° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Dayton, OH (MGY)	<b>Destination:</b>	West Chicago, IL (DPA)

## Airport Information

<b>Airport:</b>	Dayton-Wright Brothers (MGY)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	20	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	5000 ft / 100 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	1 Fatal	<b>Aircraft Fire:</b>	On-Ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	On-Ground

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Timothy Sorensen	<b>Adopted Date:</b>	06/20/2011
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=75624">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=75624</a>		

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.