



# Aviation Investigation Final Report

<b>Location:</b>	Cheyboygan, Michigan	<b>Accident Number:</b>	CHI07CA044
<b>Date &amp; Time:</b>	December 20, 2006, 10:15 Local	<b>Registration:</b>	N5811D
<b>Aircraft:</b>	Piper PA-22-150	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The airplane encountered soft terrain during an off airport forced landing following a loss of engine power. The pilot reported that while climbing, shortly after takeoff, he switched from the left fuel tank to the right fuel tank. He stated that approximately three minutes later the engine lost power. The pilot stated he switched back to the left fuel tank, checked the magnetos, and switched on the carburetor heat, but was unable to regain power. He reported he made a turn back toward the airport to land. The airplane touched down in soft terrain approximately 300 feet short of the approach end of runway. The airport manager stated the airplane bounced, weathervaned and landed sideways which resulted in the right main gear collapsing and the nose gear buckling. The right wing and propeller contacted the ground as the airplane slid. Post accident inspection of the airplane and engine failed to reveal any mechanical failure/malfunction which would have resulted in the loss of engine power.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power for undetermined reasons. A factor was the soft terrain encountered during the landing.

## Findings

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

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. TERRAIN CONDITION - GROUND

3. (F) TERRAIN CONDITION - SOFT

## Factual Information

The airplane encountered soft terrain during an off airport forced landing following a loss of engine power. The pilot reported that while climbing, shortly after takeoff, he switched from the left fuel tank to the right fuel tank. He stated that approximately three minutes later the engine lost power. The pilot stated he switched back to the left fuel tank, checked the magnetos, and switched on the carburetor heat, but was unable to regain power. He reported he made a turn back toward the airport to land. The airplane touched down in soft terrain approximately 300 feet short of the approach end of runway. The airport manager stated the airplane bounced, weathervaned and landed sideways which resulted in the right main gear collapsing and the nose gear buckling. The right wing and propeller contacted the ground as the airplane slid. Post accident inspection of the airplane and engine by inspectors from the Federal Aviation Administration, Grand Rapids, Michigan Flight Standards District Office failed to reveal any mechanical failure/malfunction which would have resulted in the loss of engine power.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	58, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3	<b>Last FAA Medical Exam:</b>	April 1, 2006
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1306 hours (Total, all aircraft), 34 hours (Total, this make and model), 6 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N5811D
<b>Model/Series:</b>	PA-22-150	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	252-4486
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>		<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	Gregg H. Dickerson	<b>Rated Power:</b>	
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Cheboygan, MI (SLH )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Pointe Aux Pins, MI (6YI )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:05 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Cheboygan County SLH	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	09	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	45.531944,-84.308052

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Sullivan, Pamela
<b>Additional Participating Persons:</b>	John Parrish; Grand Rapids, MI FSDO
<b>Original Publish Date:</b>	March 26, 2007
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=65165">https://data.nts.gov/Docket?ProjectID=65165</a>

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