



# National Transportation Safety Board Aviation Accident Final Report

---

<b>Location:</b>	MASON, MI	<b>Accident Number:</b>	CHI99LA044
<b>Date &amp; Time:</b>	12/01/1998, 1650 EST	<b>Registration:</b>	N36700
<b>Aircraft:</b>	Piper PA-28-181	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

---

## Analysis

The pilot reported the engine lost power while in the traffic pattern after having flown two hours. The airplane was landed in a field during which time the right main landing gear collapsed. Post accident inspection revealed the left fuel tank was full of fuel and the right fuel tank was empty. A post accident test run of the engine failed to reveal any anomalies. The pilot reported that he did not switch fuel tanks in a timely manner during the flight.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inattention to fuel management in that he failed to switch fuel tanks in a timely manner which resulted in fuel starvation. A factor related to the accident was the low altitude at which the loss of engine power occurred.

## Findings

---

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: APPROACH

### Findings

1. (C) FLUID,FUEL - STARVATION
2. (C) FUEL MANAGEMENT - INATTENTIVE - PILOT IN COMMAND
3. (C) FUEL TANK SELECTOR POSITION - IMPROPER - PILOT IN COMMAND

-----

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

### Findings

4. (F) ALTITUDE - LOW - PILOT IN COMMAND

-----

Occurrence #3: MAIN GEAR COLLAPSED  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

5. LANDING GEAR,MAIN GEAR - OVERLOAD

## Factual Information

On December 1, 1998, at 1650 eastern standard time, a Piper PA- 28-181, N36700, operated by a private pilot collided with the terrain during an off airport forced landing 2 miles east of the Jewett Airport, Mason, Michigan. The pilot reported the forced landing was a result of a loss of engine power. The pilot was not injured. The airplane was substantially damaged. The 14 CFR Part 91 personal flight was operating in visual meteorological conditions. The flight originated from Muskegon, Michigan.

The pilot departed Mason, Michigan, at 1445 est and flew to Muskegon, Michigan, where he made a touch and go landing prior to heading back to Mason. The pilot reported that while at 1,800 feet, on base leg for landing on runway 27 at the Jewett Airport, the engine lost power. The pilot landed the airplane in an open field during which time the right main landing gear collapsed.

Post accident inspection of the airplane revealed the right fuel tank was empty and the left fuel tank was full. The airplane had been refueled prior to departing Mason, Michigan. The hobbs time at departure was 3260.5 and the hobbs time noted at the accident site was 3262.5. Each fuel tank holds 24 gallons of usable fuel. According to an Inspector from the Federal Aviation Administration (FAA) Belleville, Michigan, Flight Standards District Office (FSDO), this airplane uses approximately 10.5 gallons per hour. The airplane was removed from the accident site and the engine was started using the left fuel tank. He reported, "Although high power was not attempted, the engine ran satisfactorily."

In a written statement to the FAA, the pilot stated, "I believe that the right fuel tank was not switched in a timely manner which led to the fuel starvation to the engine and the eventual forced landing."

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	44, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	04/28/1997
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	143 hours (Total, all aircraft), 5 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N36700
Model/Series:	PA-28-181 PA-28-181	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	28-7890526
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	11/13/1998, Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	28 Hours	Engines:	1 Reciprocating
Airframe Total Time:	5079 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-360
Registered Owner:	AEROGENESIS FLT TRAINING ACDMY	Rated Power:	180 hp
Operator:	AEROGENESIS FLT TRAINING ACDMY	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	TEW, 919 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	1656 EST	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	11°C / 0°C
Precipitation and Obscuration:			
Departure Point:	MUSKEGON, MI (MKG)	Type of Flight Plan Filed:	None
Destination:	(TEW)	Type of Clearance:	None
Departure Time:	1605 EST	Type of Airspace:	Class E

## Wreckage and Impact Information

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

## Administrative Information

**Investigator In Charge (IIC):** PAMELA S SULLIVAN **Report Date:** 02/16/2001

**Additional Participating Persons:** GARY KNAGGS; BELLEVILLE, MI

**Publish Date:**

**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](mailto: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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).