



# Aviation Investigation Final Report

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<b>Location:</b>	CANTON, Michigan	<b>Accident Number:</b>	CHI98LA131
<b>Date &amp; Time:</b>	April 18, 1998, 18:30 Local	<b>Registration:</b>	N50566
<b>Aircraft:</b>	Cessna 150J	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

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## Analysis

The aircraft was on an instructional flight and had just taken off from a stop-and-go landing. The instructor pilot reported that during climb there was a power interruption prior to impact, and he initiated a forced landing in a residential area, and that at no time did he feel that the engine power had returned. Subsequent to the accident, an examination of the airplane and engine failed to reveal any mechanical anomalies other than those associated with the impact and post accident fire. He initiated a forced landing in a residential area. Ground scars related with the initial impact were noted on a residential street. The aircraft then proceeded through a boulevard colliding with a mailbox and leaving horizontal slashes in the concrete sidewalk consistent with propeller strikes. The aircraft then came to rest in a driveway with the main landing gear bent aft. The propeller showed evidence of rotation with chordwise scratching and nicks. One blade of the propeller was broken off and was located about one city block away from the wreckage. The blade had a curled tip and also evidence of chordwise scratching.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The undetermined loss of power reported by the pilot. Contributing factors were the residential nature of the landing area and unsuitable landing terrain.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: TAKEOFF - INITIAL CLIMB

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 - ROLL

Findings

2. (F) TERRAIN CONDITION - RESIDENTIAL AREA

3. (F) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - ENCOUNTERED

## Factual Information

On April 18, 1998, at 1830 eastern daylight time, a Cessna 150J, N50556, registered to a corporation, sustained substantial damage during an off airport landing and post accident fire. The accident occurred about one mile south of the airport. The pilot said that there was a power interruption prior to impact, and he initiated a forced landing in a residential area. The instructor and student received serious injuries. The instructional 14 CFR Part 91 flight was operating in visual meteorological conditions. No flight plan was on file. The local flight originally departed Willow Run Airport, at Ypsilanti, Michigan, exact time unknown, and was conducting full stop and taxi back landings and takeoffs at the nearby Canton-Mettetal Airport. The instructor said that at the time of the accident they were returning to Willow Run.

The pilot said that they were conducting full stop landings and taxi backs for departure at Canton-Mettetal. He said that they were on their sixth takeoff and had decided to return to Willow Run. He said that during the previous landings and takeoffs there was no problem with the airplane. He said that the carburetor heat was used on all previous landings and removed during the taxi and takeoffs. He said that the airplane was topped off with fuel prior to departure from Willow Run. He said that the airplane had been in operation a total of approximately 45 minutes at the time of the accident. He said that while in climb the engine lost power, and he realized that a forced landing would have to be made in a residential area. He said that about five to ten seconds prior to touchdown he lowered the flaps to full down. He said that at no time did he feel that the engine power had returned. He did not recall the impact.

An examination of the airplane wreckage revealed that initial ground scars were on a residential street and coincided with the position and damage to the left wingtip. The airplane continued into the boulevard where a mailbox was knocked out of the ground. The airplane continued in a gradual turn to the left and there were three horizontal slashes in the concrete sidewalk consistent with propeller strikes. The airplane continued forward coming to rest in a driveway. The landing gear was failed with the main landing gear bent aft. The fuselage was fractured circumferentially at the baggage compartment and the firewall was separated from the front of the fuselage with the nose bent down. An engine fire started after the airplane came to rest.

When the airplane was removed from the accident site 18 gallons of fuel was removed from the airplane prior to transporting the wreckage. An examination of the airplane revealed fuel was present in the fuel selector and fuel lines to the carburetor. There was thumb compression on all four cylinders. Continuity was established through the flight and engine controls. There were no anomalies found that were attributed to other than impact and fire damage.

One propeller blade was broken. The broken end was found about one city block away from the wreckage, in the front yard of a residence. The piece displayed nicks and chordwise scratches. The outboard end of the blade was curled back.

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	26, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	October 1, 1997
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2039 hours (Total, all aircraft), 1959 hours (Pilot In Command, all aircraft), 132 hours (Last 90 days, all aircraft), 66 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N50566
<b>Model/Series:</b>	150J 150J	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	15069400
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 15, 1998 100 hour	<b>Certified Max Gross Wt.:</b>	1600 lbs
<b>Time Since Last Inspection:</b>	14 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4674 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-200-A
<b>Registered Owner:</b>	SOMETHING NEW AIRCRAFT LEASING	<b>Rated Power:</b>	100 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	A DIFFERENT APPROACH, INC	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	YIP ,716 ft msl	<b>Distance from Accident Site:</b>	8 Nautical Miles
<b>Observation Time:</b>	17:50 Local	<b>Direction from Accident Site:</b>	210°
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	25 miles
<b>Lowest Ceiling:</b>	Overcast / 25000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	15°C / -1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(1D2 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	BELLEVILLE , MI (YIP )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Rubber deposits
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious	<b>Latitude, Longitude:</b>	42.300949,-83.4803(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Wilson, Stephen
<b>Additional Participating Persons:</b>	NORMAN L MOORE; BELLEVILLE , MI JIM HUTTON; BELLEVILLE , MI
<b>Original Publish Date:</b>	March 31, 2000
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=10857">https://data.nts.gov/Docket?ProjectID=10857</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).