



# Aviation Investigation Final Report

<b>Location:</b>	FULTON, Missouri	<b>Accident Number:</b>	CHI97LA143
<b>Date &amp; Time:</b>	May 21, 1997, 20:00 Local	<b>Registration:</b>	N76122
<b>Aircraft:</b>	CESSNA 140	<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 said the engine experienced a total loss of power shortly after takeoff. He said he was able to land the airplane on the remaining runway. The pilot said he intentionally ground looped the airplane so it would not roll into a ditch located near the runway's departure end. Following the accident the engine was run to its static RPM of 2,200 RPM. The inspection of the carburetor revealed a spalled float fulcrum pin. According to the FAA Maintenance or Defect Report filed on this discovery, '...wear on this pin can cause this type of problem.'

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a malfunction of the engine's carburetor that was associated with a spalled carburetor float fulcrum pin which resulted in fuel starvation.

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

1. (C) FUEL SYSTEM,CARBURETOR FLOAT - MALFUNCTION
2. (C) FLUID,FUEL - STARVATION

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF  
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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

3. GROUND LOOP/SWERVE - INTENTIONAL - PILOT IN COMMAND

## Factual Information

On May 21, 1997, at 2000 central daylight time (cdt), a Cessna 140, N76122, piloted by a private pilot, was substantially damaged during an intentional ground loop following a forced landing on runway 09 (1,800' x 100' dry sod) at the Sky-Go Airport, a restricted landing area 2 miles northwest of Fulton, Missouri. The 14 CFR Part 91 flight was not operating on a flight plan. Visual meteorological conditions prevailed at the time of the accident. The pilot reported no injuries.

The pilot said the airplane experienced a total loss of engine power during the initial takeoff climb. He said he was able to land back on the runway, but decided to intentionally ground loop the airplane to prevent it from colliding with a ditch located near the departure end of the runway.

A witness said he saw N76122 lift off the runway at mid-field. He said, "The engine sounded normal on the takeoff... ." According to the witness, N76122 was "...about 20 to 30 feet [above the runway] when the engine quit."

The engine was test run and attained its static RPM of 2,200 RPM. The engine on N76122 was equipped with a Stromberg carburetor, Model Number NAS-3A1. After the engine was test run the carburetor was disassembled. Examination of the carburetor's float fulcrum showed it was spalled. According to the FAA Form 8010-4, Malfunction or Defect Report, "Experience has shown any wear on this pin can cause this type of problem."

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	80, 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>	
<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>	September 3, 1996
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2430 hours (Total, all aircraft), 2399 hours (Total, this make and model), 17 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N76122
<b>Model/Series:</b>	140 140	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	10519
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	November 10, 1996 Annual	<b>Certified Max Gross Wt.:</b>	1800 lbs
<b>Time Since Last Inspection:</b>	26 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6706 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	C-85-12
<b>Registered Owner:</b>	140 FLYING CLUB, INC.	<b>Rated Power:</b>	85 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<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>	COU ,890 ft msl	<b>Distance from Accident Site:</b>	20 Nautical Miles
<b>Observation Time:</b>	19:54 Local	<b>Direction from Accident Site:</b>	280°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	70°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 6°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(RLA )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(RLA )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	20:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	SKYGO RLA	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	850 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	9	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	1800 ft / 100 ft	<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>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	38.939018,-91.929183(est)

## Administrative Information

**Investigator In Charge (IIC):** Gattolin, Frank

**Additional Participating Persons:** ART DE VILLAR III; KANSAS CITY , MO

**Original Publish Date:** August 25, 1997

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=10575>

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