Aviation Investigation Final Report

Location:	Gary, Indiana	**Accident Number:**	CHI01LA114
Date & Time:	April 8, 2001, 09:00 Local	**Registration:**	N6460D
Aircraft:	Piper J3C-65	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The airplane contacted a rock and directional control was lost during a forced landing following a loss of engine power. The pilot reported the engine quit while he was six miles out over the water from the shoreline of Lake Michigan. The pilot reported he was able to temporarily restore engine power as he positioned the airplane for a forced landing. The right main gear separated from the airplane during the landing roll after it contacted a large rock. The airplane came to rest part way down an embankment. Examination of the airplane after the accident revealed the carburetor had separated from the engine; however, there was no evidence of fuel leakage at the accident site. One and one-half ounces of fuel were drained from the fuel line between the header fuel tank and the fuel selector. The fuel gages indicated the right tank was empty and the left tank contained 1/3 tank of fuel. A visual inspection of both tanks revealed they were empty. The airplane had been modified with an extended range fuel system. The airplane had not been flown since September, 2000. The pilot reported that three days prior to the accident, he noticed fuel leaking out of the carburetor. He reported that he was told by a mechanic and the airplane owner that the float needle was stuck and that he should tap the carburetor with a wrench. He reported he did this, then flew the airplane around the traffic pattern. The airplane then sat until the day of the accident. The pilot reported he did not visually check the fuel level prior to takeoff on the accident flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The inadequate preflight performed by the pilot which resulted in an insufficient fuel supply and the subsequent fuel exhaustion. Factors associated with the accident were the inaccurate fuel quantity indicator, the rock which resulted in the overload failure of the right main landing gear, and the embankment which the airplane traveled down.

Findings

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

Findings
1. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. FUEL SUPPLY - INADEQUATE
3. (C) FLUID,FUEL - EXHAUSTION
4. ENGINE INSTRUMENTS,FUEL QUANTITY GAGE - INACCURATE

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

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings
5. (F) AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - ROCK(S)/BOULDER(S)

Occurrence #4: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings
6. (F) LANDING GEAR,MAIN GEAR - OVERLOAD

Occurrence #5: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings
7. (F) AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - DROP-OFF/DESCENDING EMBANKMENT

Factual Information

On April 8, 2001, at 0900 central daylight time, a Piper J3C-65, N6460D, operated by a commercial pilot, collided with the terrain during a forced landing on a road in Gary, Indiana. The forced landing followed a loss of engine power. The pilot was not injured and the airplane was substantially damaged. The 14 CFR Part 91 flight was operating in visual meteorological conditions without a flight plan. The flight originated from Merrillville, Indiana, at 0850 central standard time, with an intended destination of Milwaukee, Wisconsin.

The pilot reported he performed an aircraft preflight and called flight service prior to departing Merrillville. He stated that he intended to fly along the Lake Michigan shoreline at 3,000 feet. The pilot reported that about 6 miles north of the Gary Airport, Gary, Indiana, while over Lake Michigan, the engine quit. He reported that he was in level flight when this occurred.

The pilot reported, "I restored engine power when I positioned the engine throttle close to idle position, then restored full power for a short time. (I cycle[d] through this situation all the way to the forced landing) I informed the tower, that I was trying to make the airport. Switched tanks valve, with no change in power pattern. In overall I just had an increased [sic] in the glide ratio caused by the low and high power setting. I informed the tower that I was going to land on the industrial complex north of the airport."

The pilot reported that he chose a road on which to land. He said that after approximately 150 feet of ground roll, the right main landing gear struck a "big" rock on the edge of the road. The landing gear separated from the airplane and the airplane slid to the right, traveling part way down an embankment. The carburetor was separated from the airplane during the impact. The right wing came to rest on the ground. The fuselage was buckled above the cockpit.

The airplane was examined by an inspector from the Federal Aviation Administration, South Bend , Indiana, Flight Standards District Office. The inspector reported that there was no evidence of fuel leakage at the accident site. The inspector drained 1 1/2 ounces of fuel from the fuel line between the header fuel tank and the fuel selector. He reported that the fuel gages indicated the right tank was empty and the left tank contained 1/3 tank of fuel. He reported, however, a visual inspection of both tanks revealed they were empty. The airplane had been modified with an extended range fuel system.

The airplane had not been flown since September, 2000. The pilot reported that three days prior to the accident, he noticed fuel leaking out of the carburetor. He reported that he was told by a mechanic and the airplane owner that the float needle was stuck and that he should tap the carburetor with a wrench. He reported he did this, then flew the airplane around the traffic pattern. The airplane then sat until the day of the accident. The pilot reported to the FAA inspector that he did not visually check the fuel level prior to takeoff on the accident flight.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	54,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Center
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	March 22, 2001
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	April 21, 2000
Flight Time:	10000 hours (Total, all aircraft), 60 hours (Total, this make and model), 9000 hours (Pilot In Command, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N6460D
Model/Series:	J3C-65	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Restricted (Special)	**Serial Number:**	19640
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	100 hour	**Certified Max Gross Wt.:**	1220 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320
Registered Owner:	Aerial Two, Inc.	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	GYY,592 ft msl	**Distance from Accident Site:**	
Observation Time:	09:38 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	15 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	250°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.89 inches Hg	**Temperature/Dew Point:**	14°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Merrillville, IN (05C)	**Type of Flight Plan Filed:**	None
Destination:	Milwaukee, WI	**Type of Clearance:**	VFR
Departure Time:	08:50 Local	**Type of Airspace:**	Class E

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating Persons:	Dave Kepple; FAA; South Bend, IN
Original Publish Date:	January 2, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52041