



# Aviation Investigation Final Report

<b>Location:</b>	St Jacob, Illinois	<b>Accident Number:</b>	CEN15LA177
<b>Date &amp; Time:</b>	March 7, 2015, 15:00 Local	<b>Registration:</b>	N87EV
<b>Aircraft:</b>	Ercoupe 415 C	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel contamination	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Ferry		

## Analysis

The pilot reported that he was flying the accident airplane under a ferry permit to the destination airport. However, due to unsafe runway conditions at the destination, he chose to land at an alternate airport nearby. Upon arrival at the alternate airport, the pilot executed an aborted landing. He applied engine power and climbed the airplane to about 150 to 200 ft and then the engine lost power without any warning. During the forced landing, the airplane sustained substantial wing and firewall damage. During a postaccident engine run using the header tank fuel from the accident flight, the engine started, ran roughly, and would not accelerate smoothly. The header tank was drained, and fresh aviation fuel was added to the tank; the engine then ran smoothly and accelerated normally. The engine likely lost power due to contaminated fuel.

## Probable Cause and Findings

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

The loss of engine power during the go-around due to fuel contamination.

## Findings

<b>Aircraft</b>	Fuel - Fluid condition
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## Factual Information

### History of Flight

<b>Approach-VFR go-around</b>	Fuel contamination (Defining event)
<b>Emergency descent</b>	Off-field or emergency landing
<b>Emergency descent</b>	Collision with terr/obj (non-CFIT)

On March 7, 2015, about 1500 central daylight time, an Ercoupe 415-C airplane, N87EV, impacted terrain during a forced landing following a loss of engine power during a go-around near the St Louis Metro-East Airport/Shafer Field (3K6), St Jacob, Illinois. The private pilot was uninjured. The airplane sustained substantial firewall and wing damage. The airplane was registered to an individual and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a ferry flight. Day visual flight rules conditions prevailed for the flight, which did not operate on a flight plan. The flight originated from the A Paul Vance Fredericktown Regional Airport (H88), near Fredericktown, Missouri, about 1400.

The pilot stated in his accident report that he was flying the accident airplane under a ferry permit from H88 to Sackman Field Airport (H49), near Columbia, Illinois. However, due to unsafe runway conditions at H49, 3K6 was chosen as an alternate airport. Upon arrival at 3K6, the pilot executed an aborted landing. He applied engine power and climbed about 150-200 feet. The engine lost power without any "coughing" or warning.

At 1358, the recorded weather at the Scott Air Force Base/MidAmerica Airport, near Belleville, Illinois, was: Wind 230 degrees at 2 knots; visibility 10 statute miles; sky condition clear; temperature 18 degrees C; dew point 1 degree C; altimeter 30.13 inches of mercury.

A Federal Aviation Administration inspector examined the accident airplane. He observed that the fuel exiting from the header fuel tank was not aviation gasoline. The inspector observed the accident airplane during a subsequent engine run. The engine started, ran rough, and it would not accelerate smoothly when it was fed fuel from the header tank containing fuel from the accident flight. The header tank was drained and fresh aviation gasoline was added to the tank. The engine ran smoothly and accelerated normally.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	48
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Lap only
<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 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	April 28, 2014
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 1, 2014
<b>Flight Time:</b>	456 hours (Total, all aircraft), 6 hours (Total, this make and model), 9.3 hours (Last 90 days, all aircraft), 4.8 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Ercoupe	<b>Registration:</b>	N87EV
<b>Model/Series:</b>	415 C C	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1946	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	958
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	March 25, 2015 Annual	<b>Certified Max Gross Wt.:</b>	1260 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2411 Hrs as of last inspection	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	A&C75 SERIES
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	75 Horsepower
<b>Operator:</b>	On file	<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>	KBLV,459 ft msl	<b>Distance from Accident Site:</b>	11 Nautical Miles
<b>Observation Time:</b>	13:58 Local	<b>Direction from Accident Site:</b>	191°
<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>	2 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	230°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.12 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	FREDERICKTOWN, MO (H88 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	St Jacob, IL (3K6 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:00 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	ST LOUIS METRO-EAST 3K6	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	477 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	13	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2662 ft / 50 ft	<b>VFR Approach/Landing:</b>	Forced landing;Traffic pattern

## 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>	38.732776,-89.806663(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Malinowski, Edward
<b>Additional Participating Persons:</b>	Kyle D Kraus; Federal Aviation Administration; St Ann, MO
<b>Original Publish Date:</b>	August 25, 2015
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=90906">https://data.nts.gov/Docket?ProjectID=90906</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](#).