



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	McVeytown, PA	<b>Accident Number:</b>	ERA12LA541
<b>Date &amp; Time:</b>	09/01/2012, 0900 EDT	<b>Registration:</b>	N70415
<b>Aircraft:</b>	JOHNSTON DOUGLAS S SAFARI	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

A witness who spoke with the pilot before the flight reported that the pilot had checked the fuel before departure and intended to "make a couple of laps" before proceeding to a local airport to purchase more fuel. Another witness observed the helicopter perform two 180-degree turns before it descended and impacted the ground. Examination of the accident site confirmed a vertical impact, and the helicopter damage was consistent with low or minimal rotor speed at the time of impact. Inspection of the fuel system revealed no fuel in the right fuel tank and about 2 pints of fuel in the left fuel tank. No contamination was observed in the fuel on board, and no obstructions were observed in the fuel system.

The experimental amateur-built helicopter was constructed from a kit and received its airworthiness certificate in 2003. The pilot purchased the helicopter about 4 months before the accident through the kit manufacturing company, which was brokering the sale of the helicopter for the builder's estate. The pilot did not hold a pilot certificate and did not register the helicopter with the FAA. Examination of the pilot's logbook revealed that about 2 years before the accident, he had received 3.2 hours of helicopter instruction. Interviews revealed that when the pilot acquired the helicopter, he flew an additional 15 hours with the owner of the helicopter kit manufacturing company (in the accident helicopter and another company helicopter). However, these flights were limited to hover practice. It is likely that while the pilot was maneuvering the helicopter at a low altitude, it experienced a loss of engine power due to fuel exhaustion. At this point, the pilot needed to immediately enter an autorotation. However, given the pilot's limited flight training and his lack of pilot certification (he would have had to demonstrate an autorotation in order to become a certificated helicopter pilot), he almost certainly was not proficient in performing autorotations. The helicopter's vertical impact with low rotor rpm is consistent with the pilot failing to make the control inputs necessary to enter an autorotation.

## Flight Events

Maneuvering-low-alt flying - Fuel exhaustion  
Maneuvering-low-alt flying - Loss of engine power (total)  
Maneuvering-low-alt flying - Loss of control in flight  
Uncontrolled descent - Collision with terr/obj (non-CFIT)

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's lack of proficiency and certification, which resulted in his failure to enter an autorotation when the engine lost power. Contributing to the accident was the pilot's inadequate fuel planning, which resulted in fuel exhaustion and a subsequent loss of engine power.

## Findings

Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid level - F

Personnel issues-Experience/knowledge-Experience/qualifications-Qualification/certification-Pilot - C

Personnel issues-Experience/knowledge-Experience/qualifications-Total experience-Pilot - C

Personnel issues-Task performance-Planning/preparation-Fuel planning-Pilot - F

## Pilot Information

<b>Certificate:</b>	None	<b>Age:</b>	61
<b>Airplane Rating(s):</b>	None	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	(Estimated) 18 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	JOHNSTON DOUGLAS S	<b>Registration:</b>	N70415
<b>Model/Series:</b>	SAFARI	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	Ken Smith	<b>Engine Manufacturer:</b>	Lycoming
<b>Air Carrier Operating Certificate:</b>	None	<b>Engine Model/Series:</b>	O-320
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	UNV, 1239 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	Broken / 7000 ft agl
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	7 knots, 280°
<b>Temperature:</b>	23°C / 19°C	<b>Visibility:</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	McVeytown, PA	<b>Destination:</b>	McVeytown, PA

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Jill M Demko	<b>Adopted Date:</b>	04/10/2013
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=84877">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=84877</a>		

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.