



## National Transportation Safety Board Aviation Accident Factual Report

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<b>Location:</b>	Holbrook, NY	<b>Accident Number:</b>	NYC04LA041
<b>Date &amp; Time:</b>	12/02/2003, 0830 EST	<b>Registration:</b>	N238CZ
<b>Aircraft:</b>	Russell Cozy MK III	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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On December 2, 2003, at 0830 eastern standard time, a homebuilt Cozy MK III, N238CZ, was substantially damaged when it impacted several residences during a forced landing, following a loss of power while on approach to the Long Island Mac Arthur Airport (ISP), Islip, New York. The certificated private pilot received minor injuries. Visual meteorological conditions prevailed and no flight plan had been filed for the personal local flight conducted under 14 CFR Part 91.

According to the pilot, he performed a preflight inspection on the airplane during which he determined there was about 15 gallons of fuel in both the right and left fuel tank. He sumped the tanks and determined there was no water or contamination. He selected the right tank for takeoff, and departed from ISP about 0730, flying east toward Montauk, New York. The pilot stated that as he flew over the Gabreski Airport (about 24 miles from ISP), he switched to the left fuel tank, and as he passed the Hampton Airport (39 miles from ISP), he decided to turn around and fly back to ISP. Approximately 20 miles from ISP, the pilot began a descent and selected the right fuel tank. At this time he believed that the right fuel tank had 15 gallons of fuel remaining, and the left tank had 12 gallons of fuel.

At an altitude of 1,500 feet, the pilot reduced the throttle and was cleared to land on runway 33L at ISP. Realizing the wind was from 290 degrees, he requested and was given clearance to land on runway 28. While still descending, the pilot turned on the fuel boost pump, noticed a slight engine vibration, and then turned the boost pump off. The pilot increased the throttle; however, he did not observe an increase in the engine RPMs. He increased the throttle further to the full forward position, and again noticed no reaction from the engine. The pilot then prepared for a forced landing to a road, during which he impacted two homes.

Examination of the airplane by a Federal Aviation Administration inspector revealed approximately 15 gallons of fuel in the right tank, and 2 gallons of fuel in the left tank; however, both fuel tanks were compromised. A sample of the fuel contained no water or contamination. The fuel selector was observed in the "off" position. The spark plugs were removed from the engine and the number 1 and number 3 plugs were coated in oil. The number 2 and number 4 plugs were light gray in color. An initial compression check revealed that the number 2 and

number 4 cylinders had "strong" compression, and the number 1 and number 3 cylinders had "weaker" compression. Functional checks were performed on the fuel boost pump and the magnetos, and no abnormalities were noted.

The engine was test run on the airframe, using the original fuel system. The engine started without hesitation and ran continuously through a variety of power settings, for approximately 5-7 minutes. After completion of the test run, the propeller was rotated and a second compression check revealed all cylinders had "tight" compressions. Additionally, no external leaks of oil or fuel were observed during the run up.

The pilot reported that on September 20, 2003, he removed the number 3 cylinder due to a broken ring, and reinstalled the chrome cylinder with chrome rings. After performing a compression check and speaking with other pilots, he learned that chrome rings could not be installed with chrome cylinders. He then replaced the engine oil, cleaned the filters and screens, rewired the starter cables, and replaced the number 3 cylinder with a Mattituck serviceable cylinder and rings. He then conducted a high-speed taxi test and performed several touch-and-gos, noticing no abnormalities.

The pilot additionally reported that the airplane was last fueled on September 20, 2003, which filled the tanks to their 52-gallon capacity. Since then, he flew one flight on November 29, 2003, which was approximately 25 minutes in duration. He also performed about 80 minutes of ground runs prior to the accident flight. The pilot stated that the airplane's fuel burn rate was about 8 gallons per hour. He additionally stated that he had accumulated about 340 hours of total flight experience, 125 of which were in the accident airplane.

According to the Lycoming O-360 Operator's Manual, the fuel burn at 75 percent power was approximately 10.5 gallons per hour, and at 65 percent power was approximately 9 gallons per hour.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	38, 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>	Seatbelt, Shoulder harness
<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--no waivers/lim.	<b>Last FAA Medical Exam:</b>	12/11/2000
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	350 hours (Total, all aircraft), 150 hours (Total, this make and model), 350 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Russell	<b>Registration:</b>	N238CZ
<b>Model/Series:</b>	Cozy MK III	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental	<b>Serial Number:</b>	505
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	01/05/2003, Condition	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	150 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	490 Hours at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360 A4K
<b>Registered Owner:</b>	Richard Hughes	<b>Rated Power:</b>	180
<b>Operator:</b>	Richard Hughes	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	ISP, 99 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	0856 EST	Direction from Accident Site:	280°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	16 knots / 21 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.11 inches Hg	Temperature/Dew Point:	2° C / -10° C
Precipitation and Obscuration:			
Departure Point:	Islip, NY (ISP)	Type of Flight Plan Filed:	None
Destination:	(ISP)	Type of Clearance:	VFR
Departure Time:	0730 EST	Type of Airspace:	Class C

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	40.799722, -73.675833

## Administrative Information

Investigator In Charge (IIC):	Jill M Andrews
Additional Participating Persons:	Anthony Muro; FAA/FSDO; Farmingdale, NY
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .