



# Aviation Investigation Final Report

<b>Location:</b>	Farmingdale, New Jersey	<b>Accident Number:</b>	ERA12LA470
<b>Date &amp; Time:</b>	July 21, 2012, 16:00 Local	<b>Registration:</b>	N2166G
<b>Aircraft:</b>	Cessna 182A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Skydiving		

## Analysis

The pilot was returning to the airport after dropping off parachutists at 9,000 feet. He said that the flight lasted about 30 minutes, and as he turned onto final approach in the traffic pattern, he pulled the throttle back, and the engine lost power. The pilot performed a forced landing in a field, and the airplane struck some power poles lying on the ground, resulting in substantial damage to the airframe. Postaccident examination of the airframe and engine revealed no evidence of a mechanical malfunction or anomaly that would have precluded normal operation. Only residual fuel was recovered from the wing tanks, and there was no fuel in the line from the tanks to the engine. The pilot stated that he should have monitored his fuel gauges more closely.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot’s improper fuel management, which resulted in a total loss of engine power due to fuel exhaustion.

## Findings

<b>Aircraft</b>	Fuel - Fluid management
<b>Personnel issues</b>	Fuel planning - Pilot

## Factual Information

### History of Flight

<b>Approach</b>	Loss of engine power (total) (Defining event)
<b>Emergency descent</b>	Off-field or emergency landing
<b>Landing-landing roll</b>	Collision with terr/obj (non-CFIT)

On July 21, 2012, about 1600 eastern daylight time, a Cessna 182A, N2166G, was substantially damaged following a loss of engine power and collision with terrain near Monmouth Executive Airport (BLM), Farmingdale, New Jersey. The certificated commercial pilot had minor injuries. The airplane was registered to a corporation and was operated by Skydive Jersey Shore under the provisions of 14 Code of Federal Regulations Part 91 as a skydiving flight. Visual meteorological conditions prevailed and no flight plan was filed. The local flight originated at BLM about 1530.

The pilot reported that he was returning to the airport after dropping parachutists at 9,000 feet. While approaching the airport, about 30 minutes into the flight, the engine lost power and stopped running. The pilot performed a forced landing in a field and the airplane collided with some poles lying on the ground and the nose gear collapsed.

Federal Aviation Administration inspectors responded to the accident site and examined the wreckage. The inspectors confirmed substantial damage to the fuselage. There was no evidence of external engine damage. The oil quantity was checked and found to be in the normal range. Little or no fuel was found in the left wing tank. The right wing tank quantity could not be determined due to the position of the right wing. The wreckage was recovered to a local maintenance facility where a subsequent examination of the airframe and engine was performed.

A yardstick was inserted into the right wing tank and the fuel level registered less than 0.75 inches. The total fuel recovered from the left wing tank was less than one quart. A fuel sample was taken from the gascolator and it was found to be blue in color and free of contaminants. The main fuel line from the wing tanks was loosened and the line was empty of fuel. The engine rotated freely when turned by hand.

The pilot reported that, after leveling off from the descent, that he should have made a more conscious effort to scan his instruments and gauges, with "special emphasis on fuel gauges." He also reported that he preflighted the fuel tanks with a wooden dipstick.

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	22, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	July 17, 2012
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	November 19, 2011
<b>Flight Time:</b>	473 hours (Total, all aircraft), 174 hours (Total, this make and model), 386 hours (Pilot In Command, all aircraft), 106 hours (Last 90 days, all aircraft), 59 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>	N2166G
<b>Model/Series:</b>	182A	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	51466
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	March 24, 2012 100 hour	<b>Certified Max Gross Wt.:</b>	2650 lbs
<b>Time Since Last Inspection:</b>	92 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	8190 Hrs at time of accident	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-470 SERIES
<b>Registered Owner:</b>	CASEY AIR INC	<b>Rated Power:</b>	230 Horsepower
<b>Operator:</b>	Skydive Jersey Shore	<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>	NEL,101 ft msl	<b>Distance from Accident Site:</b>	14 Nautical Miles
<b>Observation Time:</b>	17:00 Local	<b>Direction from Accident Site:</b>	210°
<b>Lowest Cloud Condition:</b>	Few / 3800 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	6 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	100°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.07 inches Hg	<b>Temperature/Dew Point:</b>	24°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Farmingdale, NJ (BLM )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Farmingdale, NJ (BLM )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	15:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Monmouth Executive BLM	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	153 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	14	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7371 ft / 85 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<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 Minor	<b>Latitude, Longitude:</b>	40.186943,-74.124443(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Ralph
<b>Additional Participating Persons:</b>	Charles Emering; FAA/FSDO; Teterboro, NJ
<b>Original Publish Date:</b>	December 11, 2012
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=84403">https://data.nts.gov/Docket?ProjectID=84403</a>

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