



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Toms River, NJ	<b>Accident Number:</b>	NYC06LA167
<b>Date &amp; Time:</b>	07/01/2006, 1245 EDT	<b>Registration:</b>	N50619
<b>Aircraft:</b>	Bellanca 7GCBC	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None

**Flight Conducted Under:** Part 91: General Aviation - Banner Tow

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## Analysis

While in cruise flight, at an altitude of 1,000 feet, the airplane's engine lost power. The pilot applied full throttle; however, the engine failed to respond, and the airplane continued to lose altitude and airspeed. At an altitude of 800 feet, the pilot applied carburetor heat and looked for a place to land. He performed a forced landing on a road, during which the airplane impacted a road sign. Examination of the airplane revealed the throttle and carburetor heat controls were observed in the off position, and approximately 17 gallons of fuel was drained from the airplane, with no contamination observed. Fuel was also observed in the carburetor bowl, gascolator, and fuel lines. The throttle, mixture, and carburetor heat control linkages were connected and operated smoothly. The throttle and carburetor heat controls were observed in the off position. The engine was test run on the airframe. It started normally and was operated between 1500 and 1700 RPM. During the test run, operational checks of the magnetos, mixture and carburetor heat controls revealed no anomalies. Interpolation of a carburetor icing probability chart revealed that atmospheric conditions were conducive to "icing at glide or cruise power."

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Carburetor icing, and the pilot's delayed application of carburetor heat, which resulted in a loss of engine power, and subsequent force landing. A factor in the accident was carburetor icing conditions.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL  
Phase of Operation: MANEUVERING

### Findings

1. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
2. (C) FUEL SYSTEM,CARBURETOR - ICE
3. (C) CARBURETOR HEAT - DELAYED - PILOT IN COMMAND

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

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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: EMERGENCY LANDING

### Findings

4. OBJECT - SIGN

## Factual Information

On July 1, 2006, at 1245 eastern daylight time, a Bellanca 7GCBC, N50619, was substantially damaged during a forced landing in Toms River, New Jersey. The certificated commercial pilot was not injured. Visual meteorological conditions prevailed for the local banner towing flight conducted under 14 CFR Part 91.

According to the pilot, as he was flying westbound at an altitude of 1,000 feet, the airplane's engine lost power. The pilot applied full throttle; however, the engine did not respond, and the airplane continued to lose altitude and airspeed. At an altitude of 800 feet, the pilot applied carburetor heat and looked for a place to land. He performed a forced landing on a road, during which the airplane impacted a road sign. The airplane subsequently spun around, the landing gear impacted a curb, and the airplane skidded to a stop in a grass area.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed that approximately 17 gallons of fuel were drained from the airplane, with no contamination observed. Fuel was also observed in the carburetor bowl, gascolator, and fuel lines. The throttle, mixture, and carburetor heat control linkages were connected and operated smoothly. The throttle and carburetor heat controls were observed in the off position.

The engine was test run on the airframe. It started normally and was operated between 1500 and 1700 RPM. During the test run, operational checks of the magnetos, mixture and carburetor heat controls revealed no anomalies.

Weather reported at McGuire Air Force Base, Wrightstown, New Jersey, approximately 22 miles to the northwest, at 1255, included winds from 290 degrees at 7 knots, visibility 7 miles, scattered clouds at 5,000 feet, temperature 84 degrees Fahrenheit, dew point 61 degrees Fahrenheit, and an altimeter setting of 30.16 inches of mercury.

Interpolation of a carburetor icing probability chart revealed that atmospheric conditions were conducive to "light icing at glide or cruise power."

## Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	47, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without Waivers/Limitations	<b>Last Medical Exam:</b>	05/01/2006
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	2645 hours (Total, all aircraft), 37 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	Bellanca	<b>Registration:</b>	N50619
<b>Model/Series:</b>	7GCBC	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1171-79
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	08/01/2005, Annual	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	Island Aerial Ads	<b>Rated Power:</b>	150 hp
<b>Operator:</b>	Island Aerial Ads	<b>Air Carrier Operating Certificate:</b>	None

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	WRI, 131 ft msl	<b>Observation Time:</b>	1255 EDT
<b>Distance from Accident Site:</b>	18 Nautical Miles	<b>Condition of Light:</b>	Day
<b>Direction from Accident Site:</b>	290°	<b>Conditions at Accident Site:</b>	Visual Conditions
<b>Lowest Cloud Condition:</b>	Scattered / 5000 ft agl	<b>Temperature/Dew Point:</b>	29° C / 16° C
<b>Lowest Ceiling:</b>	None	<b>Visibility</b>	7 Miles
<b>Wind Speed/Gusts, Direction:</b>	7 knots, 290°	<b>Visibility (RVR):</b>	
<b>Altimeter Setting:</b>	30.16 inches Hg	<b>Visibility (RVV):</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Linden, NJ (LDJ)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(LDJ)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	1200 EDT	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<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
<b>Total Injuries:</b>	1 None		

## Administrative Information

**Investigator In Charge (IIC):** Jill M Andrews **Adopted Date:** 07/25/2007

**Additional Participating Persons:** Ernie Scardecchio; FAA/FSDO; Philadelphia, PA

**Publish Date:**

**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 [pubinq@ntsb.gov](mailto:pubinq@ntsb.gov), or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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