



Aviation Investigation Final Report

Location:	Egg Harbor Township, New Jersey	Accident Number:	ERA11LA437
Date & Time:	August 2, 2011, 15:00 Local	Registration:	N87020
Aircraft:	Bellanca 8GCBC	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Banner tow		

Analysis

After the airplane’s fourth unsuccessful attempt to pick up a banner, a witness reported that the airplane was flying about 100 feet above ground level and the wings were "wobbling." The airplane then descended, and spun before it impacted the ground. The pilot stated that he did not have any recollection of the accident or the events prior to the accident. No preimpact anomalies were noted with the airframe or engine during a postaccident examination.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot’s failure to maintain adequate airspeed while maneuvering near the ground, which resulted in an aerodynamic stall.

Findings

Personnel issues	Incorrect action performance - Pilot
Aircraft	Airspeed - Not attained/maintained

Factual Information

History of Flight

Maneuvering	Aerodynamic stall/spin (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On August 2, 2011, at 1500, eastern daylight time, a Bellanca 8GCBC, N87020, registered to an individual and operated by Heads Up Advertising, incurred substantial damage when it impacted terrain in Egg Harbor Township, New Jersey. The pilot was seriously injured. Visual meteorological conditions prevailed and a company flight plan was filed for the Title 14 Code of Federal Regulations Part 91, banner towing flight. The flight originated from Woodbine Municipal Airport (OBI), Woodbine, New Jersey, about 1450.

The responding Federal Aviation Administration (FAA) inspector stated that the pilot fueled the airplane prior to flying towards the banner pick up area. The pilot attempted 3 banner pickups prior to the accident. He maneuvered the airplane for the fourth attempt but failed to pick up the banner. The banner ground handler looked away and started to prepare the banner for another attempt, when moments later he heard a loud impact noise and observed the airplane had crashed into the ground about half mile away from the pickup area, on the crosswind for the banner tow pattern.

According to a witness, the airplane was observed flying approximately 100 feet above ground level. She noted that the wings were "wobbling" and the airplane was not climbing although it was in a nose up attitude. Next, she saw the airplane begin to "nosedive" and start spinning but was unable to see the airplane impact the ground.

The pilot stated that he did not have any recollection of the accident or the events prior to the accident.

The airplane was manufactured in 1974 and was equipped with a Lycoming O-360 series, 180-horsepower engine. The airplane's most recent annual inspection was completed on February 3, 2011. At the time of the inspection, the reported aircraft time was 6698.0 total hours and the recorded tachometer was 2090.15 hours. The tachometer located in the wreckage 2236.91 hours.

The pilot, age 20, held a commercial pilot certificate with ratings for airplane single-engine land and instrument airplane. His most recent Federal Aviation Administration (FAA) second-class medical certificate was issued in May 2011. He reported 600 total hours of flight experience, of which, 65 hours were in the accident airplane make and model.

A post accident examination of the wreckage by the FAA revealed that control continuity was

verified to all flight control surfaces. Fuel samples were taken from each wing with no water or contaminants noted. Examination of the engine was performed and the top and bottom sparkplugs were removed and no issues were noted. The crankshaft was rotated by the propeller flange and compression was observed on all cylinders. In addition, spark was obtained from the spark plug leads during the rotation.

Pilot Information

Certificate:	Commercial; Private	Age:	20, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	September 21, 2006
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 12, 2010
Flight Time:	600 hours (Total, all aircraft), 65 hours (Total, this make and model), 65 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bellanca	Registration:	N87020
Model/Series:	8GCBC	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	52-74
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	February 3, 2011 Annual	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:	146 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6845 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	O&VO-360 SER
Registered Owner:	On file	Rated Power:	180 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KACY,75 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	14:54 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	5 knots / 14 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.73 inches Hg	Temperature/Dew Point:	32°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Woodbine, NJ (OBI)	Type of Flight Plan Filed:	Company VFR
Destination:	Egg Harbor Township, NJ	Type of Clearance:	None
Departure Time:	14:50 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	39.386943,-74.623886(est)

Administrative Information

Investigator In Charge (IIC):	Obregon, Jose
Additional Participating Persons:	Daryl K Fortner; FAA/FSDO; Philadelphia, PA
Original Publish Date:	November 26, 2012
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=81367

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