Aviation Investigation Final Report

Location:	Gold Hill, North Carolina	**Accident Number:**	ATL06LA103
Date & Time:	July 8, 2006, 15:13 Local	**Registration:**	N96758
Aircraft:	Taylorcraft BC12-D	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

According to the pilot, on the first landing attempt he was going to do a three point landing. On touchdown the airplane "darted" to the left. He then came back across the runway going toward the right side, but got it airborne before it could go off the runway. He climbed out and continued in the pattern for another landing. He said he wanted to get the airplane on the ground to try and find out why it darted to the left. His second landing attempt was going to be another three point landing. On touchdown the airplane darted to he right. The airplane was angled toward a two story house. He then pulled the control wheel aft to keep it on the ground and "ride it out." He said that was a mistake because the airplane then bounced. He pushed the nose over and he thinks he had some power on. When he saw that he would hit the house if he continued, he added full power and pulled back to climb. The airplane then stalled and the right wing dropped and he crashed. Examination of the airplane by an FAA Inspector found no mechanical problems with the aircraft structure, flight controls, or engine. A review of the pilot's log book found that the pilot total flight time in all aircraft was 346 hours. The pilot received his tail wheel endorsement August 2, 1998, and had accumulated a total of 48 hours since that endorsement. At the time of the accident, the pilot had logged 3.5 hours of total flight time since January of 2006.

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 airspeed while doing a go around, which resulted in an inadvertent stall, loss of control and in-flight collision with the ground. A factor was the pilot's lack of recent experience in the airplane.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: GO-AROUND (VFR)

Findings
1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. (F) LACK OF RECENT EXPERIENCE - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
4. TERRAIN CONDITION - GROUND

Factual Information

On July 8, 2006, at 1513 eastern daylight time, a Taylorcraft BC12-D, N96758, registered to and operated by the private individual as a Title 14 CFR Part 91, personal flight, collided with the ground following a bounced landing at the Gold Hill Airport, in Gold Hill, North Carolina. Visual meteorological conditions prevailed and no flight plan was filed for the local flight. The airplane sustained substantial damage. The private pilot received serious injuries. The flight had originated at the Gold Hill Airport at 1500 the same day.

According to a witness, the airplane was coming from the direction of runway 27. The witness heard the airplane at full power, he looked up and saw that the airplane had an extremely nose high attitude, and would barely clear his house. According to the witness, when the airplane was just beyond him, by an estimated 150 to 200 feet, the right wing dropped, the nose pitched down and the airplane struck the ground. The witnesses house was located about 1,200 feet from the approach end of runway 27. The witness contacted the 911 operator and informed them of the accident.

According to the pilot, on the first landing attempt at Gold Hill he was going to do a three point landing. On touchdown the airplane "darted" to the left. He then came back across the runway going toward the right side, but got it airborne before it could go off the runway. He climbed out and continued in the pattern for another landing. He said he wanted to get the airplane on the ground to try and find out why it darted to the left. His second landing attempt was going to be another three point landing. On touchdown, the airplane darted to the right. The airplane was angled toward a gray two story house. He then pulled the control wheel aft to keep it on the ground and "ride it out." He said that was a mistake because the airplane then bounced. He pushed the nose over and he thinks he had some power on. When he saw that he would hit the gray house if he continued, he added full power and pulled back to climb. The airplane then stalled and the right wing dropped and he crashed.

According to the FAA, for clarification of the pilot's statement the gray two story house was not the house of the witness. The witness, who stated that the airplane barely made it over his house was located about 200 feet to the west of the witnesses brown house.

A review of information on file with the Federal Aviation Administration Airman's Certification Division, Oklahoma City, Oklahoma, revealed that the pilot was issued a private pilot certificate for airplane single engine land on October 19, 1987, A review of the pilot's log book found that the pilot's total flight time in all aircraft was 346 hours. The pilot received his tail wheel endorsement August 2, 1998, and had accumulated a total of 48 hours since that endorsement. At the time of the accident, the pilot had logged 3.5 hours of total flight time since January of 2006. A review of records on file with the FAA Aero Medical Records revealed the pilot held a third class medical certificate issued on July 14, 2004, with no restrictions. The

pilot had reported on his application for the medical certificate that he had accumulated 408 total flight hours.

Examination of the airplane by an FAA Inspector found the nose of the airplane crushed upward from the right underside. The right wing outboard of the fuselage approximately five feet was angled upward 40-degrees. The right wing tip was crushed upward. The underside of the fuselage just aft of the firewall had been crushed to the rudder pedals. The cockpit instrument panel was distorted and bent forward in the center. The windshield was broken out. The right landing gear was separated from the fuselage. There were propeller strike marks in the ground at about 45-degrees to the left of the nose. The propeller was twisted and had scratches on the face from the leading edge to the trailing edge. The left wing tip underside was slightly damaged. The fuselage from the both wings aft, the vertical stabilizer and rudder, the left horizontal stabilizer and elevator, and the right horizontal stabilizer were not damaged. The right elevator had minor surface abrasions under the outboard edge.

Rudder control continuity was checked at the scene. The rudder pedals could not be moved due to the underside forward fuselage damage. The rudder control cables near the rudder pedals were pulled and movement could be seen where the rudder cables come out of each side of the aft fuselage and attach to the rudder. The cables were attached to the rudder and when the rudder was moved left and right the cables moved. Both steering springs were attached to the tail wheel assembly and when the rudder was moved left and right the tail wheel moved in the proper direction. Aileron cable control continuity was also established. The right side landing gear had been torn from the airplane. The right tire had good tread and had very slight wear. There were no unusual marks on the tire or unusual wear. The wheel rotated easily on the axle. The same was true of the left landing gear. Inspection of both the left and right brake assemblies found no defects. There were no mechanical or engine problems discovered during the post-accident examination of the airplane.

Tire marks were located in the grass. Tread marks in the dirt between the runway edge and the grass were consistent with the tread of the accident airplanes tire. There was only one visible track. The track was barely visible as it departed the runway centerline at about a 20-25 degree angle, which it maintained throughout. Once the track left the asphalt runway it made distinct tread marks in the ground between the runway edge and the grass. The track continued through the grass then over a concrete taxiway where evidence of slight sideways rubbing could be seen for about two feet. The track was evident again leaving the concrete and continuing through the grass about 100 feet, and heading toward the west of the witnesses house. At that point the track ended.

Pilot Information

Certificate:	Private	**Age:**	69,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	July 1, 2004
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	September 1, 2004
Flight Time:	346 hours (Total, all aircraft), 48 hours (Total, this make and model), 3 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Taylorcraft	**Registration:**	N96758
Model/Series:	BC12-D	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Utility	**Serial Number:**	9058
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	October 1, 2005 Annual	**Certified Max Gross Wt.:**	1500 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	2540 Hrs at time of accident	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	A&C65
Registered Owner:	On file	**Rated Power:**	65 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:	INT,969 ft msl	**Distance from Accident Site:**	37 Nautical Miles
Observation Time:	14:54 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Scattered / 6000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 7500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	300°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	25°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gold Hill, NC (NC25)	**Type of Flight Plan Filed:**	None
Destination:	Gold Hill, NC (NC25)	**Type of Clearance:**	None
Departure Time:	15:13 Local	**Type of Airspace:**	

Airport Information

Airport:	Gold Hill Airport NC25	**Runway Surface Type:**	Asphalt
Airport Elevation:	720 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	27	**IFR Approach:**	None
Runway Length/Width:	3000 ft / 30 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

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:**	35.505279,-80.306663

Administrative Information

Investigator In Charge (IIC):	Wilson, Ralph
Additional Participating Persons:	Darlene R Somers; Charlotte FSDO; Charlotte, NC
Original Publish Date:	August 30, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=64082