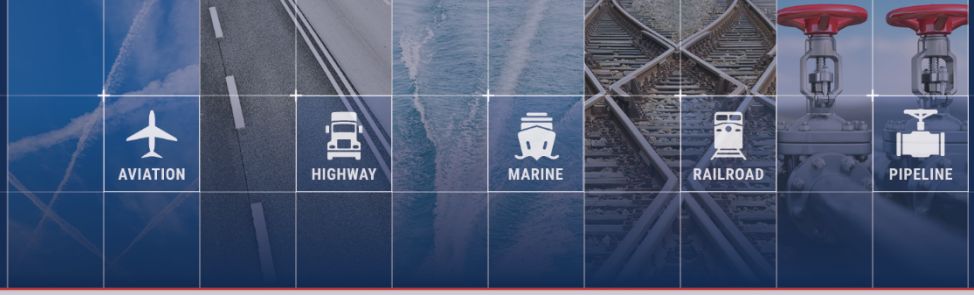

Aviation Investigation Final Report

Location:	Whitesburg, Georgia	**Accident Number:**	ERA11FA462
Date & Time:	August 18, 2011, 11:45 Local	**Registration:**	N281G
Aircraft:	Beech B19	**Aircraft Damage:**	Substantial
Defining Event:	Miscellaneous/other	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Witnesses observed the student pilot perform a go-around a few feet above the landing surface, about one-third of the way down the runway. They reported that the engine sounded normal; however, the airplane was not climbing and accelerating as expected. Several witnesses reported that the wing flaps remained extended during the go-around. The airplane collided with trees at the departure end of the runway and crashed into a cemetery. Examination of the wreckage revealed no evidence of a preexisting mechanical malfunction or failure. Rotational damage to the propeller indicated that the engine was producing power at impact. Examination of the flap motor jack screw revealed that the flaps were extended about 30 degrees at impact. The Pilot's Operating Handbook procedures stated that the flaps must be raised during a balked landing (go-around).

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The student pilot did not retract the wing flaps during a go-around, which decreased the airplane’s climb performance and resulted in an in-flight collision with trees.

Findings

Aircraft	Climb rate - Not attained/maintained
Aircraft	TE flap control system - Not used/operated
Personnel issues	Use of equip/system - Pilot

Factual Information

History of Flight

Approach-VFR go-around	Miscellaneous/other (Defining event)
Approach-VFR go-around	Collision with terr/obj (non-CFIT)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

HISTORY OF FLIGHT

On August 18, 2011, about 1145 eastern daylight time, a Beech B19, N281G, was substantially damaged following a collision with trees and terrain near Lyons Landing Airport (5GA2), Whitesburg, Georgia. The student pilot received serious injuries in the accident and succumbed to his injuries on October 11, 2011. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed and there was no flight plan filed. The local flight originated from 5GA2 about 1130.

The pilot's father-in-law witnessed the accident. He reported that the pilot flew three or four passes down the runway, each at tree-top level or higher. The pilot then aligned the airplane on a one-mile final approach, and it appeared that he was trying to land. When the airplane was about one fourth of the way down the runway, and about 8 to 10 feet above the ground, he observed a wing "dip momentarily." The pilot applied power and executed a go-around. The airplane began to climb, and then he noticed that the airplane was no longer climbing. The airplane approached the trees at the end of the runway, and he noticed a slight drop in altitude, similar to it encountering a tailwind. He observed the airplane collide with the trees. He stated that the engine sounded normal during the go-around and the flaps were down when the airplane impacted the trees. After responding to the accident site, he recalled that the pilot stated, "It wouldn’t climb…I couldn’t get it to climb."

Several other witnesses observed the accident sequence. One witness reported that the engine sound was not as loud as he would expect, and the airplane seemed to have a "low energy state" during the go-around. He also identified a landmark where the go-around commenced, which was about 2,150 feet from the trees at the end of runway 27. He did not hear any unusual noises from the engine and noticed that the flaps were extended when the airplane impacted the trees. Another witness reported that the engine sounded normal.

After the airplane collided with trees and terrain, a post-impact fire ensued.

PERSONNEL INFORMATION

The pilot held a student pilot certificate with no ratings, issued on January 6, 2010. He also

held a Federal Aviation Administration (FAA) airframe and powerplant mechanic certificate. On his latest FAA third-class medical certificate application, also dated January 6, 2010, he reported 90 civilian flight hours. The pilot's logbook was not located following the accident.

AIRCRAFT INFORMATION

The aircraft was a single-engine, low-wing, fixed conventional gear airplane, serial number MB-614. The airplane was built in 1973 and registered to the pilot in 2008. It was powered by a Lycoming O-320-E3D engine rated at 150 horsepower at 2,700 rpm. The aircraft maintenance logbooks were not located following the accident.

METEOROLOGICAL INFORMATION

The 1135 recorded weather observation at West Georgia Regional Airport (CTJ),Carrollton, Georgia, located approximately 13 nautical miles west of the accident location, included wind from 210 degrees at 4 knots, clear skies, 10 miles of visibility, temperature 30 degrees C, dew point 21 degrees C, and an altimeter setting of 30.09 inches of mercury.

AERODROME INFORMATION

Lyons Landing Airport was located about five miles south of Whitesburg, Georgia, at an elevation of 1,080 feet. The airport was a private airstrip with private residences adjacent to the runway. According to the airport website, the turf runway was about 3,000 feet-long, 90-feet-wide, and oriented 09/27. The following airfield remarks were included on the airport website, "At midpoint the runway rises 3% and high trees are at the west end. The runway is primarily a one-way strip with landings to the west and takeoffs to the east."

FLIGHT RECORDERS

The airplane was not equipped with hardened recording devices. There was no evidence that any other non-volatile memory survived the post-impact fire.

WRECKAGE AND IMPACT INFORMATION

The airplane impacted trees and terrain near the intersection of Consolation Church Road and Jones Mill Road, Whitesburg, GA. Coordinates of the main wreckage were 33 degrees, 34 minutes, 22.29 seconds north, and 84 degrees 55 minutes 0.93 seconds west, which was at an elevation of 1,137 feet. The airplane came to rest upright, in a cemetery, about 400 feet southwest of the departure end of runway 27 at 5GA2. The first indication of tree contact was a mature pine tree, about 40 feet tall. The main wreckage was located about 188 feet west-southwest of the initial impact point with the trees.

No pre-impact anomalies were noted with the airframe. The cockpit and cabin were severely fire-damaged from the post-impact fire. All flight and engine instruments were unreadable, and

no information was obtained from the cockpit instruments and switches. All major structural components and flight control surfaces of the airplane were located within the area of the main wreckage.

Flight control cable continuity was established from the cockpit controls to the control surfaces. Flight control cable continuity was observed to be intact from the cockpit control connection point to the empennage flight controls. The aileron flight controls were observed to be intact from the cockpit flight controls to the left aileron bell crank and the from the cockpit flight controls to mid-wing on the right wing. The cable was separated but the remaining cable was found attached to the right aileron bell crank. The right aileron cable exhibited tension overload failure signatures about mid-wing and the balance cable was separated at the right fuselage sidewall. The pitch trim control was intact from the pitch trim in the cockpit to the pitch trim actuator and from the pitch trim actuator to the trim tab.

The left wing was separated from the fuselage. The end of the separated main spar was partially consumed by the post-impact fire. The leading edge wing attach plate was fractured and partially consumed by the post-impact fire. The separated wing remained intact with the left main landing gear strut separated from its wing attachment. There was a buckle in the flap approximately mid-span and aligned with the area of the separated main landing gear strut. The outer leading edge, next to the wing tip attachment, was buckled and pine tree debris was found in the area of the buckle. The aileron remained attached to the wing. The flap remained attached to the wing via the inboard flap attachment, and the outboard attachment point was separated. The flap control rod was separated from the flap torque tube.

The right wing was separated from the fuselage. The inboard fuel tank area was consumed by the post-impact fire. The main spar was partially consumed by the post-impact fire. The inboard half of the flap was consumed by the post-impact fire. The aileron remained attached to the trailing edge of the wing. The flap remained attached to the wing by the outboard hinge. The flap control rod was consumed by the post-impact fire. The right main strut remained attached to the wing. There was a tear from the right wing leading edge aft to the spar just outboard of the wing tie down lug.
The right wing bottom wing skins on either side of the tear contained a chordwise abrasion in a strip about 4-6 inches wide.

The airplane was equipped with electric flaps. Examination of the flap actuator jack screw revealed 11 exposed threads. According to the airplane manufacturer, this corresponded to a flap setting of about 30 degrees.

The forward area of the fuselage (cabin area) was partially consumed by the post-impact fire. Remnants of the partially-consumed side wall and cabin roof were found lying on the partially-consumed cabin floor. The left front and right front seat pans were consumed by the post-impact fire. The internal structures of the seat backs were recovered from the cabin area. No clasped seat belts were located in the cabin area. The airplane was equipped with shoulder

harnesses.

The left fuel filler cap was installed with the latch closed. The left fuel tank output line was found separated at the fuselage side wall. The right tank was consumed by the post impact fire. The fuel selector valve was located and the tank selected was determined to be from the left wing tank. The fuel lines from both tanks and the output line to the firewall were consumed by post-impact fire. The fuel selector handle was consumed by fire. The gascolator was located with no lines attached. The gascolator was clear of debris and the screen was clean.

The horizontal stabilizers remained attached to the rear fuselage. The vertical stabilizer remained attached to the rear fuselage. The stabilizer trim tab remained attached to the trailing edge of the stabilizer. The leading edge on the right side of the stabilizer was accordion-crushed rearward approximately 6 inches.

The engine remained attached to the engine mount, which remained attached to the firewall. Cockpit engine control continuity was confirmed from the cockpit through the firewall to the carburetor (engine power and mixture control) and the carburetor heat to the carburetor heat controller at the base of the carburetor. Engine controls were found in the near full-forward positions.

The engine remained intact. The propeller was separated from the crankshaft propeller mounting flange. The carburetor remained attached to the intake manifold. The muffler remained partially attached to the exhaust system. Disassembly and removal of the muffler shroud revealed jagged surface cracks in several areas of the muffler. Both magnetos remained attached to the accessory section although the magneto caps were consumed by post-impact fire. The vacuum pump remained attached to the engine. The oil filter was partially attached to the accessory section.

The top spark plugs were removed from the cylinders and the fine wire electrodes exhibited normal wear and color when compared to the Champion fine wire spark plug inspection card.

The engine crankshaft was rotated by hand via the propeller flange with the valve covers and the top spark plugs removed. Cylinder valve train continuity was observed to be intact. Compression and suction were confirmed on all four cylinders using the thumb compression method.

The carburetor was removed from the intake manifold and the float cover was removed. The floats were of metal construction with no visible perforations or cracks. The needle valve was confirmed to be attached to the float assembly and the float assembly was capable of pivoting. The needle valve was removed and the passage was observed to be clear. An attempt to confirm operation of the accelerator pump was not successful due to the extensive thermal damage to the unit.

The Sensenich two-bladed, fixed-pitch propeller was separated from the engine and was found

adjacent to the main wreckage. The separated propeller was examined. One blade was curled aft and then at about three-fourths span curled forward. That blade's tip was separated, and the leading edge of the blade tip displayed impact damage. The other blade was curled forward at a midspan location and displayed significant blade back chordwise scratching, and the blade had multiple leading edge dents.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot received serious injuries in the accident and succumbed to his injuries on October 11, 2011. According to the Georgia death certificate issued for the pilot, the cause of death was septic shock due to, or as a consequence of, respiratory failure, due to, or as a consequence of, 65 to 70 percent total body surface area burns as a result of the airplane crash.

The pilot died 54 days after the accident as a result of his injuries. In accordance with 49 Code of Federal Regulations 830.2, which defines "fatal injury" as any injury that results in death within 30 days of the accident, his injuries were classified as "serious." An autopsy and toxicological testing were not performed.

ADDITIONAL INFORMATION

The following procedures for a balked landing (go-around) were included in the B19 Pilot's Operating Handbook:

BALKED LANDING

1. Carburetor Heat – COLD
2. Power – FULL THROTTLE, 2700 RPM
3. Airspeed – 60 kts/69 mph until clear of obstacles, then trim to BEST RATE-OF-CLIMB
4. Flaps – UP.

Pilot Information

Certificate:	Student	**Age:**	47,Male
Airplane Rating(s):	None	**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:**	January 6, 2010
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	90 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N281G
Model/Series:	B19	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal; Utility	**Serial Number:**	MB-614
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	2150 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	LYCOMING
ELT:	Installed	**Engine Model/Series:**	0-320-E3D
Registered Owner:	PEDERSON GEORGE M	**Rated Power:**	150 Horsepower
Operator:	PEDERSON GEORGE M	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	CTJ,1165 ft msl	**Distance from Accident Site:**	13 Nautical Miles
Observation Time:	11:35 Local	**Direction from Accident Site:**	270°
Lowest Cloud Condition:	Clear / 3400 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.09 inches Hg	**Temperature/Dew Point:**	30°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Whitesburg, GA (5GA2)	**Type of Flight Plan Filed:**	None
Destination:	Whitesburg, GA (5GA2)	**Type of Clearance:**	None
Departure Time:	11:30 Local	**Type of Airspace:**	

Airport Information

Airport:	Lyons Landing 5GA2	**Runway Surface Type:**	Grass/turf
Airport Elevation:	1080 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	27	**IFR Approach:**	None
Runway Length/Width:	3000 ft / 90 ft	**VFR Approach/Landing:**	Go around;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	33.572498,-84.916946

Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	Steve DaCosta; FAA/FSDO; Atlanta, GA Paul Yoos; Hawker Beechcraft Corporation; Wichita, KS
Original Publish Date:	March 27, 2012
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=81531