



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

Central Region

August 30, 2017

AIRFRAME AND ENGINE EXAMINATION

CEN17FA331

Beech A36, N87RY

Ellabell, GA

August 28, 2017

This document contains 0 embedded photos.

(2 Pages)

1.0 EXAMINATION PARTICIPANTS:

John Brannen
Senior Air Safety Investigator
National Transportation Safety Board
4760 Oakland Street
Suite 500
Denver, CO 80239

Mike Pupic
Inspector
Federal Aviation Administration
1701 Columbia Avenue
Atlanta, GA 30337

Kurt Gibson
Air Safety Investigator
Continental Motors
2039 S. Broad St.
Mobile, AL. 36615

Ricardo Asensio
Air Safety Investigator
Textron Aviation
One Cessna Blvd
Wichita, KS 67215

2.0 SUMMARY

Examination of the recovered airframe and engine was conducted on August 30, 2017 at the facilities of Atlanta Air Salvage. No evidence of preimpact mechanical malfunction was noted during the examination of the recovered airframe. The airplane's engine had a 2 inch diameter hole in the upper right rear of the engine case. The engine will be shipped to Continental Motors in Mobile Alabama for a teardown examination.

3.0 DETAILS OF THE INVESTIGATION

On scene examination began on August 29, 2017. The airplane impacted trees and terrain near Ellabell, GA. The airplane was found in a wooded swamp area at coordinates 32.23946, - 81.43914, at a GPS elevation of 59 feet. The airplane was upright and facing 323 degrees. There was an impact crater centered about 10 feet directly in front of the nose of the airplane. Beyond the impact crater were trees with broken limbs and trunks that indicated a descent angle of about 45 degrees. The engine was partially separated from the fuselage. The fuselage was buckled in the cabin section with the aft section bent upward. The tail surfaces remained attached to the aft fuselage. The elevator was still attached to the horizontal stabilizer, and the rudder was still attached to the vertical stabilizer. The windshield and window posts had been cut by first responders to facilitate extrication of the occupants. The forward fuselage was crushed rearward. Both wings exhibited rearward crushing with the right wing crushing being more pronounced than the left. The crush angles indicated a ground impact that was about 25 degrees from vertical. Both wings remained attached to the fuselage and the flaps and ailerons remained attached to the wings. The location of the airplane and the terrain precluded a comprehensive on-scene examination. The airplane was recovered from the accident site and transported to Atlanta Air Salvage for a more comprehensive examination.

On August 30, 2017, the parties and NTSB IIC convened at Atlanta Air Salvage where the airplane had been relocated. The engine had a hole in the top right rear of the engine case that

was about 2 inches in diameter. The crankshaft was visible through the hole and there was no connecting rod attached to the visible rod journal. The engine will be shipped to Continental Motors facility in Mobile Alabama for a teardown examination.

Examination of the airframe revealed the following:

- The aft fuselage had been cut off to facilitate removal from the scene
- The left horizontal stabilizer and elevator had been cut to facilitate removal from the scene
- The right wing tip had been cut to facilitate removal from the scene.
- The engine had been removed to facilitate removal from the scene.
- Aileron control system continuity was verified from the cabin to the control surfaces.
- Elevator control system continuity was verified from the cabin to the elevator with the exception of the cuts made to the cable in order to extract the airplane.
- Rudder control system continuity was verified from the cabin to the rudder with the exception of the cuts made to the cable in order to extract the airplane.
- The flaps were found in the up position (0 degrees)
- The landing gear was retracted.
- No pre-impact defects were noted with respect to the airframe.

Submitted by: John Brannen