



NATIONAL TRANSPORTATION SAFETY BOARD

Eastern Regional Office (Virginia)
45065 Riverside Parkway
Ashburn, Virginia 20147

December 2, 2015

Mr. Brian Rayner,

I inspected the propellers for accident ERA16FA035, model number HC-E4N-5A. Both propellers were thermally damaged.

The right propeller had severe thermal damage. Two of the four blades were melted in half. The third blade was fractured in half. The fourth blade was bent forward and aft for the length of the blade. The cylinder, piston, pitch change rod, and feathering assembly were fractured off the hub. Wood from a tree was jammed in the pitch change rod keeping the feathering assembly from fully engaging into the feathering position. This is indicative of the propeller being in a normal operating range before it made contact with tree and fracturing off the assembly. Three of the four preload plates had impression marks near the low pitch stop. The fourth preload plate had an impression mark near the feather position.

The left propeller had some slight thermal damage. The first blade was fractured off approx. 10" from the base of the blade. The second blade was fractured at the tip with approx. 10" missing from the tip. The three blades showed signs of bending forward and aft through the length of the blades. Two blades had gouges, knicks and bending on the trailing edges of the blades. The cylinder, piston, pitch change rod, and feathering spring assembly were fractured off the hub. The preload plates had impression marks past the mechanical stops of the feathering position. The marks are considered unreliable.

Daniel Boggs
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