

Continued Airworthiness Notification to the International Community

To: Civil Aviation Authorities

Date: October 31, 2019

From: Federal Aviation Administration
Policy and Innovation Division
901 Locust, Room 301
Kansas City, MO 64106

Subject: This message is to advise you of the FAA's ongoing activities related to cracking and fracturing of the right aileron flight control cable end fittings (terminal attachment fittings) connected to the turnbuckle barrel on various Textron Aviation Inc. (type certificate formerly held by Beechcraft Corporation) (Textron) airplanes.

Accident/ Incident Description: Within the last year, the FAA has received an estimated 17 reports of the right aileron flight control cable end fittings failing on various Textron model airplanes. There are two different cable assemblies installed on the right aileron flight control system. The forward aileron cable assembly connects the control wheel to the turnbuckle, and the aft aileron cable assembly connects the aileron surface to the turnbuckle. These failures have occurred at the swaged cable end fittings that thread into the turnbuckle. The location of the right aileron cable end fittings, just forward of the aft carry through spar and underneath a heating duct, creates an environment where corrosion may be accelerated. Also, the presence of the turnbuckle safety wire, combined with the location beneath the heating duct, makes corrosion and cracking difficult to detect. Some of the reports of failed cable end fittings revealed that the aileron cables had been held together only by the safety wire, while other reports were of complete aileron cable separation (see illustration and photos on page 2). This condition, if not addressed, could result in failure of the right aileron flight control cable assembly, un-commanded right roll of the airplane, and loss of roll control in the left direction, which may lead to loss of control of the airplane.

Aircraft/ Engine Make, Model and Series: Textron Aviation Inc. Models E33, E33A, E33C, F33, G33, 35-C33, 35-C33A, K35, M35, N35, P35, S35, V35, V35A, 36, F33A, F33C, V35B, and A36 airplanes.

Worldwide fleet: 6457 **U.S.-registered fleet:** 4138

The FAA estimates that approximately 6,457 airplanes are affected worldwide. The number of those airplanes that are registered in the United States is approximately 4,138.

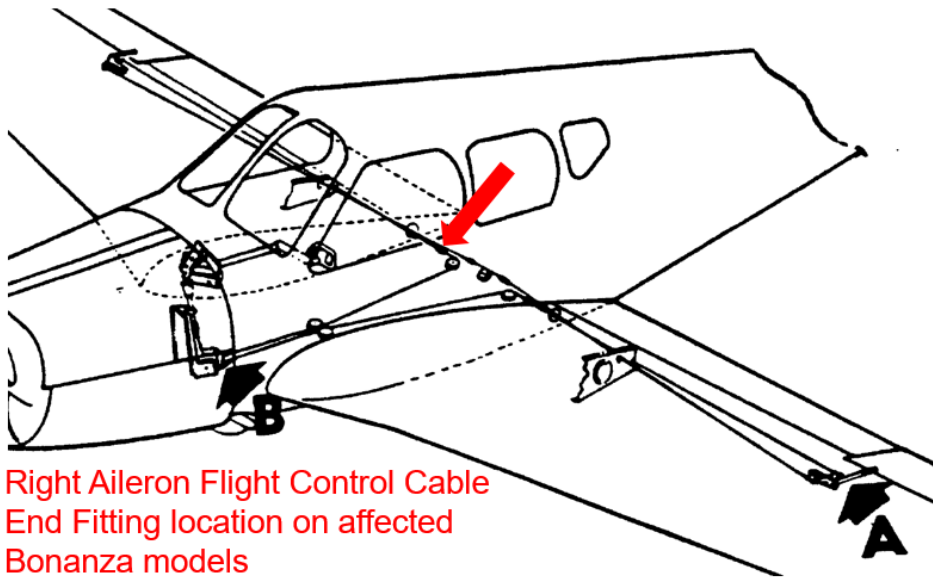
Operators: The affected operators are believed to be general aviation operators.

Ongoing activities: The FAA is issuing an immediately adopted airworthiness directive (AD) to address the unsafe condition on these products. The AD will require an inspection of the turnbuckles with corrective action as necessary.

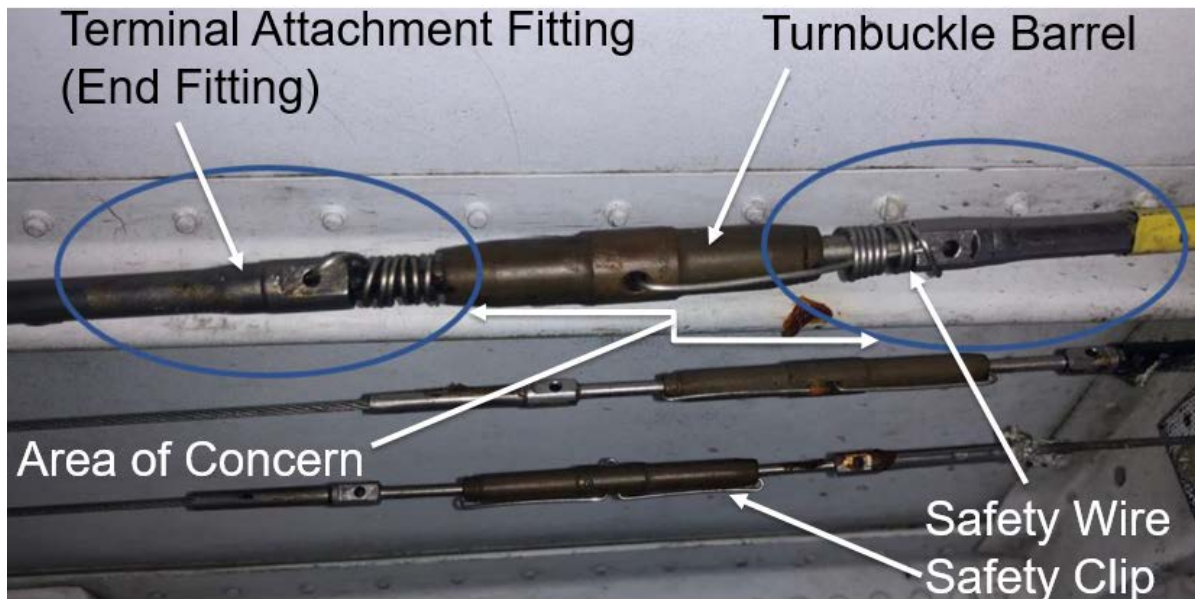
Contact:

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Typical Beechcraft Bonanza Aileron Controls



Right Aileron Flight Control Cable
End Fitting location on affected
Bonanza models



Right aileron control cable with failure under safety wire



Right aileron control cable with safety wire partially removed



S35 Aileron Cable



Not Severely Corroded