FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: AIR-21-20
SUBJ: TE FLAP CONTROL SYSTEM, Flight Controls –Flap Cable Tension **Date:** December 16, 2021
This is information only. Recommendations aren't mandatory.

Introduction

This special airworthiness information bulletin (SAIB) alerts owners, operators, maintenance technicians, and inspectors of an airworthiness concern on Textron Aviation Inc. (formerly Cessna Aircraft Company) **Model 310, 310A, 310B, 310C, 310D, 310F, 310G, 310H, 310I, 310J, 310J-1, 310K, 310L, 310N, 310P, 310Q, 310R, 320, 320-1, 320A, 320B, 320C, 320D, 320E, 320F, 335, 340, 340A, 401, 401A, 401B, 402, 402A, 402B, 402C, 411, 411A, 414, 414A, 421, 421A, 421B, 421C, and 425** airplanes. The intent is to emphasize the importance of ensuring control cable tensions are set correctly during airplane maintenance, particularly when similar cables require different tensioning.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

The FAA received a report of an event that occurred on November 26, 2019, where the flap extend cable failed during approach. The pilot felt a sudden right roll and right yaw, which they corrected with near full left aileron and left rudder. When the flaps were retracted, the airplane became controllable again. A no-flap landing was conducted, and the aircraft rolled out and stopped without further incident. A search of the FAA's service difficulty report (SDR) system revealed 24 similar events of flap extend cable failure over the last 35 years, all without a serious outcome.

The FAA suspects improper tensioning as a contributing factor in the flap extend cable failures. The flap extend cable has a specified tension significantly lower than the retract cable. In general, improper tensioning of the flight control cables may result in cable failure or interference with airplane structure.

Textron has revised their manuals for the airplane models listed above to emphasize the differences between extension and retraction rigging tensions.

Recommendations

The FAA recommends using the latest revision of the applicable service manual to ensure control cable extension and retraction rigging tensions are set correctly during airplane maintenance.

For Further Information Contact

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