FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-12-16
SUBJ: Elevator Trim Tab Control System **Date:** February 2, 2012

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts owners and operators of **Cessna Model 510** airplanes of an airworthiness concern. Specifically, this SAIB informs owners and operators of reports of pitch trim freezing and provides guidance and recommendations on how to reduce the likelihood of this occurring.

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

There have been at least four reports of pitch trim systems (electric and manual) freezing in flight. In three of these events, pitch trim was recovered in flight either by descending to a lower altitude or forcing the pitch trim loose with the manual wheel. In most cases, the airplane had been exposed to precipitation, and the pilots had reported seeing a primary flight display annunciation (indicating elevator mistrim or electric elevator trim inoperative). In one case, a pilot reported large amounts of water draining from the tailcone for at least 45 minutes after landing.

Cessna has released two mandatory service documents to help remedy this issue. In March 2010, Service Letter (SL) 510-53-03 was released. This SL called for an inspection of the tailcone lower skin assembly to verify the presence of a drain hole. If the drain hole was missing, the SL specified it to be installed. In February 2011, SL 510-55-02 was released. This SL called for installation of sealant along the fairing at the top of the vertical stabilizer, around the ground recognition light, and optional high frequency antenna.

In addition, Cessna had Garmin inspect a servo and servo mount that had been involved in one of these events. In the servo mount, Garmin found an oily substance on the slip clutch rings and friction disks. This substance, which was found to be lubricant, reduced the torque output capability substantially.

Recommendations

We recommend that owners and operators of Cessna Model 510 airplanes ensure:

1. Pilots review and follow the appropriate Abnormal Procedures in the airplane flight manual (AFM)(electric elevator trim inoperative, elevator mistrim, and/or jammed elevator trim tab) if a loss of pitch trim occurs in flight.

2. Maintenance personnel perform both SL 510-53-03 and SL 510-55-02 on all affected aircraft to ensure appropriate drainage and sealing in the affected areas.

3. Maintenance personnel have performed and continue to perform maintenance manual Task 22-10-20-720 (Autopilot Servo Mount Functional Check) every 450 hours or 12 calendar months, whichever occurs first.

For Further Information Contact

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