FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: CE-12-15
Date: January 30, 2012

SUBJ: DC Power Distribution System - Avionics Master Switch

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) informs registered owners and operators of an airworthiness concern associated with the avionics master switch on **Cessna Aircraft Company (Cessna) Model 172R, 172S, 182T, T182T, 206H and T206H airplanes.** There is a potential for an accelerated rate of failure of the switch, which may result in the loss of avionics equipment on Garmin G1000-equipped airplanes.

Although failure of the switch can result in loss of equipment, these airplanes are designed such that avionics equipment necessary for the pilot to continue safe flight and landing are still maintained through the aircraft's electrical system.

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

Background

We have received reports indicating a trend of failures associated with components of the Garmin G1000 avionics suite in the Cessna single-engine models identified above.

After investigating further and coordinating with Cessna, we determined that electrical contact erosion was occurring internal to the switch. This erosion is due to power-up surge currents caused by avionics equipment connected to one side of the switch (Avionics Bus 2). We reviewed the electrical distribution system for the affected models and found that in the event of a complete failure of the avionics master switch, essential equipment necessary to continue safe flight and landing will be maintained through alternate power sources.

Cessna has issued Service Bulletin SB 11-24-02 to address this issue.

Recommendations

We recommend the following for all owners and operators of Cessna Models 172R, 172S, 182T, T182T, 206H, and T206H aircraft equipped with a Garmin G1000 system:

1) Replacement of the avionics master switch (part number S3443-1-1) every 500 hours of operation following Cessna Service Bulletin SB11-24-02, dated July 21, 2011.

2) If you experience issues during power up of the avionics where a display or other equipment does not initially power and it requires cycling of the avionics master switch, take further action to isolate and identify the problem including inspection of the switch for possible impending failure.

3) If you experience any system failure in-flight or before flight, follow the appropriate published abnormal or emergency procedures, and have the failed system repaired before the next flight. Take further action to isolate and identify the problem including inspection of the avionics master switch for possible impending failure.

For Further Information Contact

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For Related Service Information Contact

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