



ATA 36 - Pneumatic: New software for Pneumatic System Controller (PSC).

This Special Airworthiness Bulletin (BEA) is intended to alert the civil aviation community about an issue affecting the Pneumatic System Controller (PSC) possibly leading to an airplane dual bleed failure scenario and cabin depressurization.

This bulletin is informative, and the recommendations herein are not mandatory. Up to this time, there is no airworthiness concern that would warrant an Airworthiness Directive (AD) according to Regulamento Brasileiro da Aviação Civil (RBAC) nº 39.

Applicability:

EMBRAER S.A. airplanes model EMB-545 and EMB-550, all serial numbers.

Description:

There have been some reports of emergency descent procedures of these airplanes after a dual bleed system failure event, which was caused by the closure of the bleed valves resulting in airplane loss of cabin pressurization.

To solve the issue, a new software has been developed with Part Number (P/N) MM-00150-12-41 or P/N MM-00150-14-41, as applicable, for the Pneumatic System Controller (PSC). The applicable service instructions issued by the manufacturer require a software update and reidentification of the PSC, intended to prevent a cascading failure scenario that can lead to a dual bleed failure and cabin depressurization.

Recommendations:

1. For airplane owners and operators: to avoid the above-described situation, e.g., a dual bleed system failure with a possible emergency descent, update the airplane PSC software and reidentify it according to the detailed instructions and procedures described in the EMBRAER Service Bulletin (SB) No. 550-36-0007, revision 02, dated June 28, 2024.
2. For EMBRAER S.A.: maintain the fleet monitoring to make sure the initially accepted assumptions made in the airplane certification process remain applicable due to the in-service experience of the airplane.

References:

EMBRAER Service Bulletin (SB) No. 550-36-0007, revision 02, dated June 28, 2024.

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