



Special Airworthiness Bulletin

BEA 2024-06R1

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New software for Air Management System (AMS).

This Special Airworthiness Bulletin (BEA) is intended to alert the civil aviation community about an issue affecting the Air Management System (AMS) possibly leading to an airplane dual bleed failure scenario.

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. ERJ 170-100, 170-200, 190-100 and 190-200 airplane models, all serial numbers equipped with Air Management System controller software versions previous to Black Label 17.0.

Description

There have been some reports of dual bleed system failure events, which were caused by the automatic shutdown of the bleed system, due to reduction of performance of the fan modulating air valve (FAV), in cases where the airplane was dispatched with one bleed system inoperative or where a previous failure occurred in the same flight.

To solve the issue, a new software has been developed with Part Number (P/N) Y1001399-017, for the Air Management System (AMS). The applicable service instructions issued by the manufacturer require a software update and reidentification of the AMS controller board, intended to prevent a failure scenario that can lead to a dual bleed failure.

Recommendations

1. To ERJ 170-100 and ERJ 170-200 airplane models owners and operators:
In order to avoid a dual bleed system failure condition in the airplane:
 - a. Update the airplane AMS software and reidentify it according to the detailed instructions and procedures described in the EMBRAER Service Bulletin (SB) No. 170-21-0073, original revision, dated August 14th, 2024.
 - b. Monitor the bleed system according to Embraer Service Newsletter SNL 170-36-0015, Revision 02, dated January 6th 2017.

2. To ERJ 190-100 and ERJ 190-200 airplane models owners and operators, except ERJ 190-100 ECJ model:
In order to avoid a dual bleed system failure condition in the airplane:
 - a. Update the airplane AMS software and reidentify it according to the detailed instructions and procedures described in the EMBRAER Service Bulletin (SB) No. 190-21-0068, original revision, dated August 14th, 2024.
 - b. Monitor the bleed system according to Embraer Service Newsletter SNL 190-36-0016, REVISION 03, dated November 4th 2020.

3. To ERJ 190-100 ECJ model owners and operators:
In order to avoid a dual bleed system failure condition in the airplane:
 - a. Update the airplane AMS software and reidentify it according to the detailed instructions and procedures described in the EMBRAER Service Bulletin (SB) No. 190LIN-21-0033, original revision, dated November 21st, 2024.
 - b. Monitor the bleed system according to Embraer Service Newsletter SNL 190-36-0016, REVISION 03, dated November 4th 2020.

4. To 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

1. EMBRAER Service Bulletin 170-21-0073, original revision, dated August 14th 2024.
2. EMBRAER Service Bulletin 190-21-0068, original revision, dated August 14th 2024.
3. EMBRAER Service Bulletin 190LIN-21-0033, original revision, dated November 21st, 2024
4. Embraer Service Newsletter SNL 170-36-0015, revision 02, dated January 6th 2017.
5. Embraer Service Newsletter SNL 190-36-0016, revision 03, dated November 4th 2020.

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