

JAA/FAA/TCA
International MRB Policy Board

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IMRBPB 003
JAA 95-003

Title: System built in test

Submitter: CAA/UK

Issue: Formulation of a common ruling, that requires the function/operation of system power-up tests to support MSG 3 Analysis level one "Evident Functional Failure" categorisation.

Problem: On some occasions recently (e.g. Boeing 777), this categorisation has been based on the assumption that "all aircraft in service are powered down completely, at least once every 100 hours of operation". This assumption is poorly founded.

Recommendation: /

IMRBPB position:

The IMRBPB believes that the particular analysis should be questioned.

If the analysis was based on the fact that the functional failure would be evident, that means the failure must be evident to the flight crew while at the flight station or more correctly (conservatively) it would be evident to the maintenance crew.

The analysis would be considered acceptable if, as a part of their normal approved checklist, flight crews are performing checks that will result in a power down/up operation. In addition, as a result of that power down/up operation, the flight crews would be expected to observe the occurrence of a resultant functional failure.

But if assumptions are made that a power down/up will occur every 100 hours, then the analysis may not be correct. If the power down/up sequence does not occur naturally, the more correctly (and conservatively) a maintenance task should occur directing maintenance to do the power down/up sequence and observe the outcome.

In other words, if assumptions were made that are not correct, the resulting analysis would not be correct. The analysis should be corrected and the appropriate task assigned.

The IMRBPB believe this item to be an issue that is best handled at the ISC/MRB Chairman level.

Important Note: The IMRBPB positions are not policy. Positions become policy only when the policy is issued formally by the appropriate National Aviation Authority (JAA, FAA or TCA).