

Seat Cushion Substitution on Large Transport Aircraft

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ABSTRACT

The possibility of substituting the cushions on large transport aircraft seats with no additional dynamic tests for re-certification is here investigated.

The suggested procedure should make use of a simplified numerical model of the upper ATD body and cushion, supported by compressive tests on cushion specimens. The simplified model derives from a more complex multi-body model of the full ATD and seat.

A series of dynamic tests on a conventional triple seat and a rigid seat, equipped with cushions of different foam layering, are used to substantiate the procedure.

The work is still in progress and only partial results can be presented.