## Federal Aviation Administration, DOT

Damage Tolerance Evaluation (DTE) means a process that leads to a determination of maintenance actions necessary to detect or preclude fatigue cracking that could contribute to a catastrophic failure. As applied to repairs and alterations, a DTE includes the evaluation both of the repair or alteration and of the fatigue critical structure affected by the repair or alteration.

Damage Tolerance Inspection (DTI) means the inspection developed as a result of a DTE. A DTI includes the areas to be inspected, the inspection method, the inspection procedures, including acceptance and rejection criteria, the threshold, and any repeat intervals associated with those inspections. The DTI may specify a time limit when a repair or alteration needs to be replaced or modified. If the DTE concludes that DT-based supplemental structural inspections are not necessary, the DTI contains a statement to that effect.

*DT data* mean DTE documentation and the DTI.

*DTE documentation* means data that identify the evaluated fatigue critical structure, the basic assumptions applied in a DTE, and the results of a DTE.

Fatigue critical structure means airplane structure that is susceptible to fatigue cracking that could contribute to a catastrophic failure, as determined in accordance with §25.571 of this chapter. Fatigue critical structure includes structure, which, if repaired or altered, could be susceptible to fatigue cracking and contribute to a catastrophic failure. Such structure may be part of the baseline structure or part of an alteration.

Implementation schedule consists of documentation that establishes the timing for accomplishing the necessary actions for developing DT data for repairs and alterations, and for incorporating those data into an operator's continuing airworthiness maintenance program. The documentation must identify times when actions must be taken as specific numbers of airplane flight hours, flight cycles, or both.

Published repair data mean instructions for accomplishing repairs, which are published for general use in structural repair manuals and service bulletins (or equivalent types of documents).

## §26.43 Holders of and applicants for type certificates—Repairs.

(a) Applicability. Except as specified in paragraph (g) of this section, this section applies to transport category, turbine powered airplane models with a type certificate issued after January 1, 1958, that as a result of original type certification or later increase in capacity have—

(1) A maximum type certificated passenger seating capacity of 30 or more; or

(2) A maximum payload capacity of 7,500 pounds or more.

(b) List of fatigue critical baseline structure. For airplanes specified in paragraph (a) of this section, the holder of or applicant for a type certificate must—

(1) Identify fatigue critical baseline structure for all airplane model variations and derivatives approved under the type certificate; and

(2) Develop and submit to the responsible Aircraft Certification Service office for review and approval, a list of the structure identified under paragraph (b)(1) of this section and, upon approval, make the list available to persons required to comply with  $\S26.47$ and  $\S121.1109$  and 129.109 of this chapter.

(c) Existing and future published repair data. For repair data published by a holder of a type certificate that is current as of January 11, 2008 and for all later published repair data, the holder of a type certificate must—

(1) Review the repair data and identify each repair specified in the data that affects fatigue critical baseline structure identified under paragraph (b)(1) of this section;

(2) Perform a DTE and develop the DTI for each repair identified under paragraph (c)(1) of this section, unless previously accomplished;

(3) Submit the DT data to the responsible Aircraft Certification Service office or its properly authorized designees for review and approval; and

(4) Upon approval, make the DTI available to persons required to comply

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