AMC 20-20 Abbreviations & Definitions

AAWG Airworthiness Assurance Working Group
AC Advisory Circular
AD Airworthiness Directive
ALS Airworthiness Limitations Section
AMC Acceptable Means of Compliance
ARAC Aviation Rulemaking Advisory Committee
BZI Baseline Zonal Inspection
CPCP Corrosion Prevention and Control Programme
CS Certification Specification
DAH Design Approval Holder
DTD Damage Tolerance Data are damage tolerance evaluation (DTE) documentation and the damage tolerance inspections (DTIs).
DTE Damage Tolerance Evaluation is 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 modifications, a DTE includes the evaluation of the repair or modification and the fatigue critical structure affected by the repair or modification. The process utilises the damage tolerance procedures as described in CS-25 AMC 25.571.
DTI,s Damage Tolerance Inspections are the inspections 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 repetitive intervals associated with those inspections. The DTIs may specify a time limit when a repair or modification needs to be replaced or modified. If the DTE concludes that DT-based supplemental structural inspections are not necessary, the DTI documentation should include a statement that the normal zonal inspection programme is sufficient.
DSD Discrete Source Damage
DSG Design Service Goal is the period of time (in flight cycles/hours) established at design and/or certification during which the principal structure will be reasonably free from significant cracking including widespread fatigue damage.
EAAWG European Ageing Aircraft Working Group
EASA European Aviation Safety Agency
ESG Extended Service Goal - is an adjustment to the design service goal established by service experience, analysis, and/or test during which the principal structure will be reasonably free from significant cracking including widespread fatigue damage.
FAA Federal Aviation Administration
FAR Federal Aviation Regulation
FCBS Fatigue Critical Baseline Structure is the baseline structure of the aircraft that is classified as fatigue critical structure.
FCS Fatigue Critical Structure - Is structure that is susceptible to fatigue cracking that could lead to a catastrophic failure of an aircraft. For the purposes of this AMC, FCS refers to the same class of structure that would need to be assessed for compliance with § 25.571(a) at Amendment 25-45, or later. The term FCS may refer to fatigue critical baseline structure, fatigue critical modified structure, or both.
ICA Instructions for Continued Airworthiness
ISP Inspection Start Point is the point in time when special inspections of the fleet are initiated due to a specific probability of having a MSD/MED condition.

Note - Monitoring period is the period of time when special inspections of the fleet are initiated due to an increased risk of MSD/MED (ISP) and ending when the SMP is reached.

JAA Joint Aviation Authorities

JAR Joint Aviation Regulation

LDC Large Damage Capability - Is the ability of the structure to sustain damage visually detectable under an operator's normal maintenance that is caused by accidental damage, fatigue damage, and environmental degradation, and still maintain limit load capability with MSD to the extent expected at SMP.

LOV Limit of Validity - Is the period of time, expressed in appropriate units (e.g. flight cycles) for which it has been shown that the established inspections and replacement times will be sufficient to allow safe operation and in particular to preclude development of widespread fatigue damage.

LOV – Operators Responsibility - Incorporate mandatory service actions into their maintenance programs. Adopt the LOV values provided by the manufacturer

LOV Establishment - The establishment of the LOV is based on the fatigue test evidence held by the manufacturer.

Sources of this information include:

- Full-scale fatigue test.
- Full-scale component tests.
- Teardown and refurbishment of a high-time airplane.
- Less than full-scale component tests.
- Statistical fleet-proven life techniques.
- Evaluation of in-service problems/test data experienced by this model or other airplanes with similar design concepts.
- Analysis methods that have been parametrically developed to reflect fatigue test and service experience

MED Multiple Element Damage is a source of widespread fatigue damage characterised by the simultaneous presence of fatigue cracks in the same structural element (i.e., fatigue cracks that may coalesce with or without other damage leading to a loss of required residual strength).

MRB Maintenance Review Board

MSD Multiple Site Damage - Is a source of widespread fatigue damage characterised by the simultaneous presence of fatigue cracks in similar adjacent structural elements.

MSD / MED Damage - Examples of airplane structure susceptible to multiple-site damage (MSD) and/or multiple-element damage (MED). This list is not meant to be inclusive of all structure that might be susceptible on any given airplane model, and it should only be used for general guidance. It should not be used to exclude any particular structure.
Longitudinal Skin Joints, Frames, and Tear Straps (MSD/MED)
Circumferential Joints and Stringers (MSD/MED)
Lap Joints with Milled, Chem-milled, or Bonded Radius (MSD)
Fuselage Frames (MED)
Stringer to Frame Attachments (MED)
Shear Clip End Fasteners on Shear Tied Fuselage Frames (MSD/MED)
Aft Pressure Dome Outer Ring and Dome Web Splices (MSD/MED)
Skin Splice at Aft Pressure Bulkhead (MSD)
Abrupt Changes in Web or Skin Thickness — Pressurized or Unpressurized Structure (MSD/MED)
Window Surround Structure (MSD/MED) Identifying WFD-susceptible structure

Wing or Empennage Chordwise Splices (MSD/MED)
Rib-to-Skin Attachments (MSD/MED)

MSG Maintenance Steering Group
NAA National Airworthiness Authority
NDI Non-Destructive Inspection
NTSB National Transportation Safety Board
PSE Principal Structural Element
RAP Repairs Assessment Programme
REG Repair Evaluation Guidelines
SMP Structural Modification Point is a point reduced from the WFD average behaviour (i.e., lower bound), so that operation up to that point provides equivalent protection to that of a two-lifetime fatigue test.
Note - No aircraft should be operated beyond the SMP without modification or part replacement.

Test-to-Structure Factor is a series of factors used to adjust test results to full-scale structure. These factors could include, but are not limited to, differences in:
— stress spectrum,
— boundary conditions,
— specimen configuration,
— material differences,
— geometric considerations, and
— environmental effects.

SB Service Bulletin
SMP Structural Modification Point
SRM Structural Repair Manual
SSID Supplemental Structural Inspection Document
SSIP Supplemental Structural Inspection Programme
STG Structural Task Group
TCH Type-Certificate Holder
WFD Widespread Fatigue Damage