

Section 5

Analysis Of Damage Growth

The airplane damage tolerance design requirements of JSSG-2006 specify that cracks shall be assumed to exist in all primary aircraft structure. These cracks shall not grow to a size to cause loss of the aircraft at a specified load within a specified period. Showing compliance with these requirements implies that the rate of growth of the assumed flaws must be predicted. This section covers basic crack growth terms, variable amplitude loading, retardation, stress sequence development, small crack behavior, and crack growth predictions.