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Abstract

Statistical models for prediction of the fatigue crack growth in aircraft service N. A. ~echval', K. N. ~echval' & E. K. vasermanis2 I Department of Applied Mathematics, Aviation University of Riga, Latvia 2University of Latvia, Riga, Latvia Abstract One of the most important problems in the fatigue analysis and design of aircraft structures is the prediction of the fatigue crack growth in service. Available inservice inspection data for various types of aircraft indicate that the fatigue crack damage accumulation in service involves considerable statistical variability. The statistical nature of the fatigue crack growth is attributed to, among others, two most important factors: (i) the statistical nature of service loads and environments experienced by aircraft structures and (ii) the inherent fatigue crack growth variability of materials. The objectives of this paper are to (i) describe possible statistical models to deal with the crack growth variability, (ii) point out their applications,

Keywords

Fatigue Life Of Asphalt Concrete With Rubber Grains

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