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Title : Fatigue Analysis of an Aircraft Fin Lug

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Abstract: A study on the cumulative fatigue damage in crack initiation and growth is carried out for the metallic fin root fitting lug of an aircraft under spectrum loading. The analysis involves determination of life to crack initiation and crack propagation life. The influence of crack closure on the fatigue crack growth has also been taken into account in the analysis. Results obtained for a lug of Al-Cu alloy under the given spectrum loading are presented and discussed.