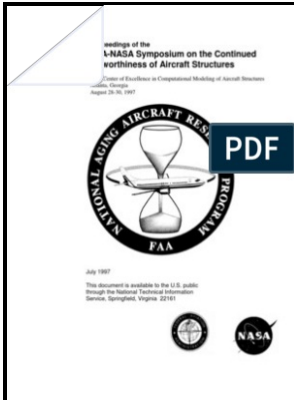


# Short-crack growth behaviour in an aluminium alloy - an Agard cooperative test programme

**Agard - Dislocation theory based short crack model and its application for aircraft aluminum alloys**



Description: -

- Short-crack growth behaviour in an aluminium alloy - an Agard cooperative test programme

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Agard report -- 732 Short-crack growth behaviour in an aluminium alloy - an Agard cooperative test programme

Notes: Sponsored by the Structures and Materials Panel of AGARD.

This edition was published in 1988



Filesize: 67.410 MB

Tags: #Dislocation #theory #based #short #crack #model #and #its #application #for #aircraft #aluminum #alloys

## Alignment verification procedures

Short-Crack Growth Behaviour in an Aluminum Alloy: An AGARD Cooperative Test Programme An AGARD test program on the growth of short fatigue cracks was conducted to define the significance of the short-crack effect, to compare test results from various laboratories and to evaluate an existing analytical model to predict the growth of such cracks.

## Short cracks initiated in Al 6013

However, such tests involve complicating issues that have emerged from many investigations on aluminium alloys since the late 1960s.

## Case Studies of Aircraft Fuselage Cracking

The short cracks grew at  $\Delta K$ -values below the threshold for long cracks at the same stress ratio.

## Fatigue and crack

Hence, the number of cycles to failure will be decreased dramatically.

## Case Studies of Aircraft Fuselage Cracking

Current load-reduction procedures were found to give elevated thresholds compared to compression pre-cracking methods. The CTOD was then used as the parameter for calculating the short crack growth rate. .

## Dislocation theory based short crack model and its application for aircraft aluminum alloys

The first phase of this program, the Core Program was aimed at test procedure and specimen standardization and calibration of the various laboratories.

### **Short**

The stress concentration around the notch has an effective role under the effect of cyclic loading. Abstract: Fatigue plays a significant role in the crack growth of the fuselage skin structures.

## Related Books

- [London Naval Conference, 1930: a bibliographical list.](#)
- [Bibliografía sobre el fenómeno El Niño desde 1891 a 1985](#)
- [Deutschland = - Germany = L'Allemagne](#)
- [Visita alle pitture di Cento di Girolamo Baruffaldi.](#)
- [Darwin and the humanities.](#)