

 <p>European Aviation Safety Agency</p>	<p>SPECIAL CONDITION</p> <p>Fatigue Evaluation</p>	<p>Doc. No. : SC-C01</p> <p>Issue : 1</p> <p>Date : 19 Nov 2010</p> <p>Ref. : CRI C-01</p> <p>Page : 1 of 1</p>
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SUBJECT : Fatigue Evaluation of Wing and Associated Structure

CERTIFICATION SPECIFICATION : FAR 23.572

PRIMARY GROUP / PANEL : -

SECONDARY GROUP / PANEL : -

NATURE : SCN

SPECIAL CONDITION

Fatigue Evaluation of Wing and Associated Structure with FAR 23 Amendment 7

STATEMENT OF ISSUE

The primary structure and wings of the proposed aircraft are composite structures. Composite structures can be considered as a novel design in comparison of the metallic structures dated 1970-1980. Fatigue evaluation of this composite structure is not adequately covered by FAR Part 23 Amdt 7 (see SC-A01). FAR Part 23 Amdt 7, 23.572 addresses fatigue strength investigation of the wing, wing carry-through, and attaching structure whose failure would be catastrophic but applies primarily to metallic structures as the composite structures were not commonly used at this date.

Based on the above considerations, the applicant shall address an acceptable means of compliance to demonstrate the strength of the primary structure of which a failure would be catastrophic.

PROPOSED SC

CS VLA.572 "Fatigue evaluation parts of structure critical to safety" and its associated AMCs considers composite structures. The subject aircraft is a simple small aeroplane, and CS VLA.572 and associated AMCs would demonstrate acceptable level of safety for the fatigue evaluation of the composite primary structure. This is proposed as a Special Condition which would be additional to the basis certification basis, FAR 23 Amendment 7.