

Comment Table - Disposition of Public Comments
Draft Advisory Circular (AC) 29-2C, section 29.571B – Fatigue Tolerance Evaluation of Metallic Structure

Organization	Page and Paragraph	Comment	Recommendation	Disposition
Carlos Ayala, Cessna Aircraft Co.		Cessna Engineering has no comments on this issue at this time.	(none)	None.
Don Sherritt, Transport Canada		<u>Comment One:</u> It is known that cracks, once initiated on dynamic components, would propagate at a very high rate due to high load frequency. If the retirement life were determined based on the time from crack initiation to the critical size, the resulting retirement life would be too short to be practical. As for airframe structures, crack growth may be slow and stable that would render a much longer retirement life. However, replacement of airframe structures may, in some case, be very costly while it may not be necessary. A question arises: is it necessary to require retirement when crack is shown to be progressing at a slow and stable rate and is readily detectable, by established inspections, well before becoming unstable or critical?	It is recommended for Crack Growth Retirement methodology NOT to be included as a means of compliance.	Not adopted. The Crack Growth Retirement methodology is an analytical approach to address the most severe damage resulting from manufacturing, maintenance, or service. The damage is modeled as a crack with a bounding equivalent crack (BEC). It may not represent actual damage and there should be no probable damage from any source that would lead to failure sooner than it would take the BEC to fail. The BEC is assumed to be located in the most critical area for the determination of the retirement life. The approach, based on the AC guidance, would result in a factored retirement life based on the BEC growth or no growth.
Don Sherritt, Transport Canada	Pg 20, Para f.(7)(iv)	<u>Comment Two:</u> Further to the comment 1 above, it is suggested that the crack growth information in section f.(7)(iv), crack growth retirement, be transferred for use in section f.(8)(ii) for crack growth inspection methodology.	Not adopted. The information in f.(7)(iv) addresses determination of a retirement life based on a conservative approach for addressing damage. Inspection intervals are discussed in f.(8)(ii)